

CLARION

2002-2003 UNDERGRADUATE CATALOG



CLARION
UNIVERSITY



Message from the President

It is with pleasure that I share with you Clarion University's 2002-2004 Undergraduate Catalog. This publication presents detailed information about the university's policies and requirements, general descriptions of its courses of study, and various directories.

New to this printing of the catalog are the revised Mission Statement of Clarion University along with statements of the university's core values and vision, approved by the Council of Trustees on January 18, 2001. These statements serve as a challenge to action for the university community and its members, affirming that achievement requires a learning partnership characterized by intellectual focus and hard work. They also make public Clarion University's commitment to helping students realize their fullest potential.

Thank you for your interest in Clarion University. May this catalog serve as an important resource as you consider and develop your educational goals.

Diane L. Reinhard

Diane L. Reinhard
President

Clarion University of Pennsylvania

**Clarion, Pennsylvania 16214-1232
814-393-2000**

www.clarion.edu

Catalog Issue 2002-2003

Navigating the Catalog

Organization

Clarion University is composed of three colleges (Arts and Sciences, Business Administration, Education and Human Services), one school (Nursing), one division (Graduate Studies), and the 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

This 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. This 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 Nursing School, 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.

Seminar. A small group of students studying a subject under 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 grade 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 persons 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.

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

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Accreditations

- AACSB International—The Association to Advance Collegiate Schools of Business
 College of Business Administration
 Phone: (314) 872-8481
 Address: 600 Emerson Road, Suite 300, St. Louis, MO 63141-6762
- Accreditation Association for Ambulatory Health Care, Inc.
 Division of Student and University Affairs/Health Center
 Phone: (847) 853-6060
 Address: 3201 Old Glenview Road, Suite 300, Wilmette, IL 60091
- American Bar Association (ABA)
 College of Business Administration/Department of Finance/Legal Assistant Education Program
 Phone: (800) 285-2221
 Address: 750 N. Lakeshore Drive, Chicago, IL 60611
- American Library Association (ALA)
 College of Education and Human Services/Dept. of Library Science/Master of Science in Library Science
 Phone: (800) 545-2433
 Address: 50 East Huron Street, Chicago, IL 60611
- Association for Childhood Education International (ACEI)
 College of Education and Human Services/Elementary Education
 Phone: (800) 423-3563
 Address: 17904 Georgia Avenue, Suite 215, Olney, MD 20832
- Association of Small Business Development Centers (ASBDC)
 Phone: (703) 448-6124
 Address: 1300 Chain Bridge Road, Suite 201, McLean, VA 22101-3967
- College Reading and Learning Association (CRLA)
 College of Arts and Sciences/Department of English/Writing Center Tutoring Program
 Phone: (307) 268- 2515
 Address: Casper College, 125 College Drive, Casper, WY 82601
- Council for Exceptional Children (CED)
 College of Education and Human Services/Special Education
 Phone: (703) 620-3660
 Address: 1920 Association Drive, Reston, VA 22091-1589
- Council on Academic Accreditation of the American Speech Language Hearing Association (ASHA)
 Department of Communication Sciences and Disorders/Master Degree in Speech Language Pathology
 Phone: (800) 638-8255
 Address: 10801 Rockville Pike, Rockville, MD 20852
- International Association of Counseling Services Inc.
 Division of Student and University Affairs/Department of Counseling Services
 Department of Counseling Services
 Phone: (703) 823-9840
 Address: 101 South Whiting Street, Suite 211, Alexandria, VA 22304
- International Reading Association (IRA)
 College of Education and Human Services/Reading
 Phone: (302) 731-1600
 Address: PO Box 8139, 800 Barksdale Road, Newark, DE 19714-8139
- Middle States Association of Colleges and Schools (MSA)
 Phone: (215) 662-5606
 Address: 3624 Market Street, Philadelphia, PA 19104-2680
- National Association for the Education of Young Children (NAEYC)
 College of Education and Human Services/Department of Education/Early Childhood Program
 Earl R. Siler Children's Learning Complex
 Phone: (800) 424-2460
 Address: 1509 16th Street, NW, Washington, DC 20036
- National Association of Schools of Music (NASM)
 College of Arts and Sciences/Department of Music
 Phone: (703) 437-0700
 Address: 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190
- National Council for Accreditation of Coaching Education (NCACE)
 College of Education and Human Services/Dept. of Health and Physical Education/Coaching Education
 Phone: (800) 213-7193
 Address: 1900 Association Drive, Reston, VA 20191-1599

- National Council for Accreditation of Teacher Education (NCATE)
 College of Education and Human Services
 Phone: (202) 466-7496
 Address: 2010 Massachusetts Avenue, NW, Suite 500, Washington, DC 20036-1023
- National Council for Social Studies (NCSS)
 College of Education and Human Services/Social Studies
 Phone: (202) 966-7840
 Address: 3501 Newark Street, NW, Washington, DC 20016-3167
- National Council of Teachers of English (NCTE)
 College of Education and Human Services/English
 Phone: (800) 369-6283
 Address: 1111 Kenyon Road, Urbana, IL 61801-1096
- National Council of Teachers of Mathematics (NCTM)
 College of Education and Human Services/Mathematics
 Phone: (800) 235-7566
 Address: 1906 Association Drive, Reston, VA 20191-1593
- National Council on Economic Education (NCEE)
 Center for Economic Education
 Phone: (800) 338-1192
 Address: 1140 Avenue of the Americas, New York, NY 10036
- National League for Nursing Accrediting Commission (NLNAC)
 School of Nursing/Associate Degree Program
 School of Nursing/Baccalaureate Degree Program
 School of Nursing/Master Degree Program
 Phone: (800) 669-9656
 Address: 61 Broadway, New York, NY 10006-4584
- National Science Teachers Association (NSTA)
 College of Education and Human Services/Science Education and Secondary Science
 Phone: (703) 243-7100
 Address: 1840 Wilson Boulevard, Arlington, VA 22201-3000

Approvals by:

American Chemical Society
 U. S. Department of Education
 U. S. Department of Veterans Affairs

Members of:

American Association of Colleges for Teacher Education
 American Association of State Colleges and Universities
 Educational Associate Institute of International Education

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) 226-2000, and direct inquiries regarding services or facilities accessibility to 504/ADA Coordinator (Assistant Director for Social Equity), 207 Carrier Administration Building, Clarion, PA 16214-1232, (814) 226-2000; (or to the Director of the Office for Civil Rights, Department of Education, 330 Independence Avenue, SW, Washington, DC 20201).

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Clarion University Academic Calendar 2002-03

(Subject to change without notice)

Summer Sessions - 2002

Session I: Pre-Session May 13–May 31
Session I: Regular session June 3–July 5
Session II: Regular session July 8–August 9

Fall Semester 2002

Registration for day and evening classes Monday, August 26
 Classes begin 8 a.m. Monday, August 26
 Labor Day Holiday Monday, September 2
 Midsemester break begins 10 p.m. Thursday, October 10
 Midsemester break ends 8 a.m. Monday, October 14
 Thanksgiving holiday begins 10 p.m. Tuesday, November 26
 Thanksgiving holiday ends 8 a.m. Monday, December 2
 Classes end 10 p.m. Friday, December 6
 Final examination period begins Monday, December 9
 Final examination period ends 10 p.m. Friday, December 13
 Semester ends 10 p.m. Friday, December 13
 Winter Commencement Saturday, December 14
 Semester grades due from faculty Thursday, December 19

Spring Semester 2003

Martin Luther King Jr. birthday observed Monday, January 20
 Registration for day and evening classes Tuesday, January 21
 Classes begin 8 a.m. Tuesday, January 21
 Winter holiday begins 10 p.m. Friday, February 28
 Winter holiday ends 8 a.m. Wednesday, March 12
Monday classes meet in place of Wednesday classes . Wednesday, March 12
 Spring vacation begins 10 p.m. Thursday, April 17
 Spring vacation ends 8 a.m. Tuesday, April 22
 Classes end 10 p.m. Friday, May 9
 Final examination period begins Monday, May 12
 Final examination period ends 10 p.m. Friday, May 16
 Semester ends 10 p.m. Friday, May 16
 Spring Commencement Saturday, May 17
 Semester grades due from faculty Thursday, May 22

Summer Sessions - 2003

Session I: Pre-Session May 19–June 6
Session I: Regular session June 9–July 11
Session II: Regular session July 14–August 15

Clarion University Academic Calendar 2003-04

(Subject to change without notice)

Fall Semester 2003

Registration for day and evening classes Monday, August 25
 Classes begin 8 a.m. Monday, August 25
 Labor Day Holiday Monday, September 1
 Midsemester break (tentative) begins 10 p.m. Thursday, October 2
 Midsemester break (tentative) ends 8 a.m. Monday, October 6
 Thanksgiving holiday begins 10 p.m. Tuesday, November 25
 Thanksgiving holiday ends 8 a.m. Monday, December 1
 Classes end 10 p.m. Friday, December 5
 Final examination period begins Monday, December 8
 Final examination period ends 10 p.m. Friday, December 12
 Semester ends 10 p.m. Friday, December 12
 Winter Commencement Saturday, December 13
 Semester grades due from faculty Thursday, December 18

Spring Semester 2004

Martin Luther King Jr. birthday observed Monday, January 19
 Registration for day and evening classes Tuesday, January 20
 Classes begin 8 a.m. Tuesday, January 20
 Winter holiday begins 10 p.m. Friday, February 27
 Winter holiday ends 8 a.m. Wednesday, March 10
Monday classes meet in place of Wednesday classes . Wednesday, March 10
 Spring vacation begins 10 p.m. Thursday, April 8
 Spring vacation ends 8 a.m. Tuesday, April 13
 Classes end 10 p.m. Friday, May 7
 Final examination period begins Monday, May 10
 Final examination period ends 10 p.m. Friday, May 14
 Semester ends 10 p.m. Friday, May 14
 Spring Commencement Saturday, May 15
 Semester grades due from faculty Thursday, May 20

Summer Sessions - 2004

Session I: Pre-session May 17–June 4
Session I: Regular session June 7–July 9
Session II: Regular session July 12–August 13

General Information



General Information

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

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

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) 393-2000; and direct inquiries regarding services or facilities 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 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 approximately 6,000 students offering associate degrees in six areas; more than 70 baccalaureate programs leading to degrees in the arts, fine arts, nursing, and sciences; and 13 graduate programs leading to the master's degrees in the arts, business administration, education, library science, nursing, and sciences. Clarion University is recognized by 25 accrediting agencies.

The main campus of the university contains 100 acres and 43 buildings. Beyond the main 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 two and one-half 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 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; science laboratories having excellent instrumentation; well-equipped support areas for special education and speech pathology; a modern business administration building; smart classrooms; radio and television studios and experimental audio-visual facilities in the Department of Communication; and a writing center, tutorial services, and a counseling center to serve students.

Venango Campus

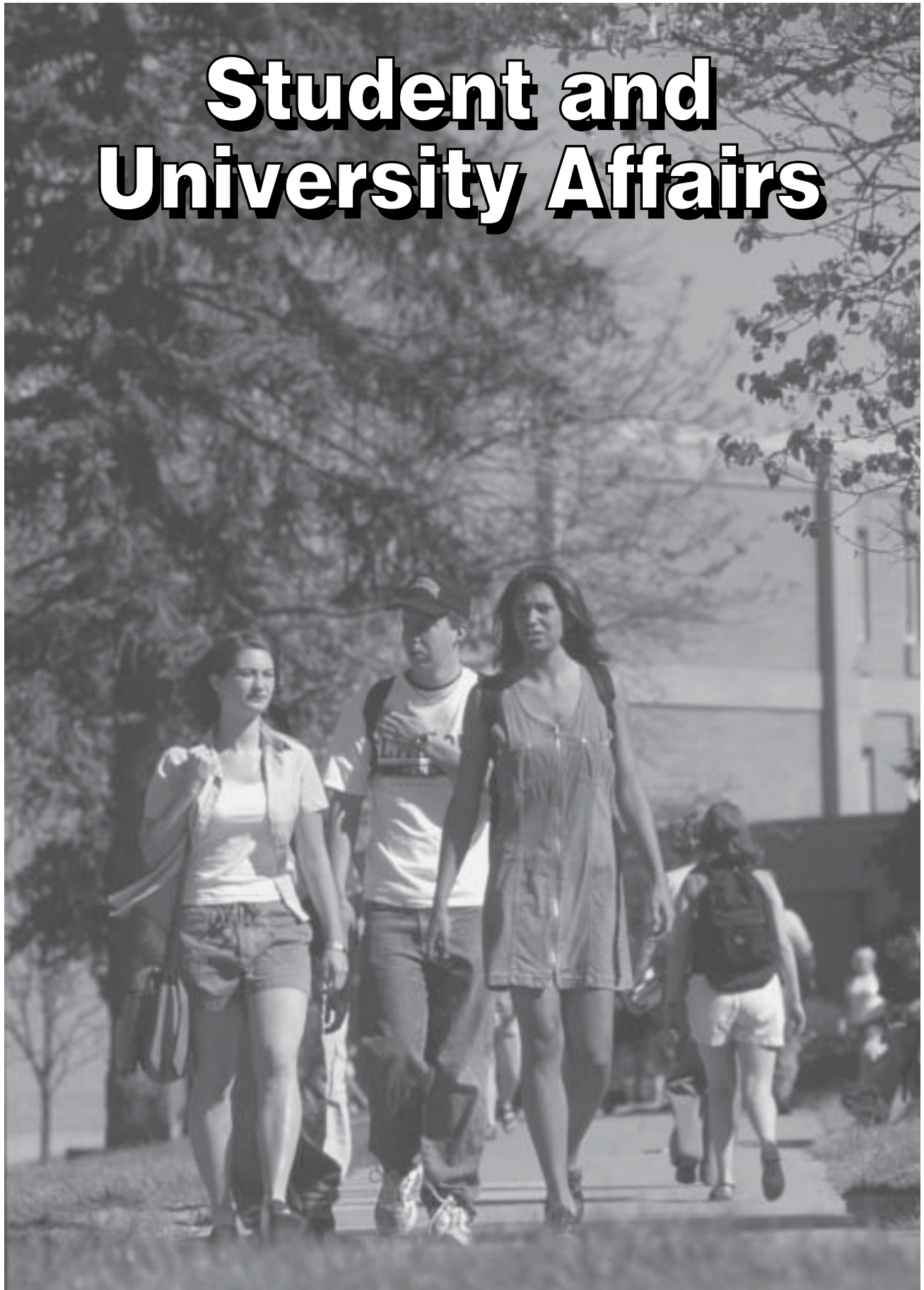
Venango Campus of Clarion University, established in 1961, was the first branch campus in the Pennsylvania State System of Higher Education. Located in Oil City, Venango Campus is scenically situated on 62 acres surrounded by heavily wooded foothills overlooking the Allegheny River.

Venango Campus is appropriate for students who prefer the atmosphere of a small campus with its capacity for providing individual attention for each student and for permitting and encouraging varied student initiated activities.

To complete an 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 one of six associate degrees in arts and sciences, business administration, legal business studies, nursing, rehabilitative services, and early childhood. Students may also complete the first two years of study toward a bachelor's degree in business, education, psychology, and rehabilitative science. Complete baccalaureate degrees offered at Clarion University—Venango Campus include radiologic science and nursing.



Student and University Affairs



Student and University Affairs

Student and University Affairs

Harry E. Tripp, M.Ed., vice president for student and university affairs

222 Egbert Hall

Telephone: 393-2351

E-mail address: htripp@clarion.edu

Website: www.clarion.edu/student/residencelife

Clarion University is concerned not only with the academic development of young men and women, but also with their development as mature, self-confident, socially competent adults. To assist this development, various student personnel services are provided. These services enable those enrolled in the university to perform more adequately as students and to derive benefits from the academic, cultural, social, and recreational opportunities offered by the campus environment. In addition, every administrative and teaching member of the faculty is charged with the responsibility of assisting students to select and achieve goals consistent with the ideals of a university community.

Student Services

Career Services

Connie J. Laughlin, M.Ed., director

114 Egbert Hall

Telephone: 393-2323

E-mail address: claughlin@clarion.edu

Website: www.clarion.edu/student/career/

The Office of Career Services is a centralized career development office serving Clarion University students and alumni. Individual assistance, programs, and resources are provided to help students (1) make informed career and educational decisions, (2) prepare for a job search, and (3) begin the transition from campus to career.

Since career planning is a continuous process, students are encouraged to make Career Services an integral part of their university experience. The services are designed to educate and guide students through the career planning process: discovering abilities and interests, exploring educational and career options, making decisions, planning activities to progress toward desired goals, and implementing a job search or application to graduate school.

Career Services provides individual assistance to students with career planning concerns; career planning and job search workshops; programs in collaboration with academic departments, campus organizations, and residence halls; the *Careerline* newsletter; a library of occupational, employer, and graduate school resources; and summer job and internship information. In addition, it provides an on-campus recruiting program by employers, a resume referral service, a mock interview program, job fairs, a resume clinic, and a job opportunities Website.

Information on the post-graduation activities of Clarion's graduates is available upon request from the Office of Career Services.

Counseling Services

Mary Ann M. Fricko, Psy.D., chair

148 Egbert Hall

Telephone: 393-2255

E-mail address: fricko@clarion.edu

Website: www.clarion.edu/student/counseling/counshome.htm

The Counseling Center offers individual, couple, and group counseling to all students, without charge. The Center provides professional help with problems of personal, social, and emotional adjustment as well as career counseling.

Most students request counseling on their own initiative. Others are 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 self or others.

Appointments can be made by contacting the Counseling Center. The Department of Counseling Services is accredited by the International Association of Counseling Service Inc.

Food Service

Food courts in Chandler Dining Hall and Reimer Snack Bar serve a variety of delicious meals and sandwich fare. Residence hall agreements include food service. On a semester basis, off-campus students may contract for meals under a variety of plans, including an all-flex plan.

Health Service

Susan Bornak, M.S.N.-C.R.N.P., administrative director

Keeling Health Services Center

Telephone: 393-2121

E-mail address: sbornack@clarion.edu

Website: www.clarion.edu/healthcenter

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 announced at the beginning of each semester. After-hour 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, 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 health services fee assessed at the beginning of each semester includes an unlimited number of visits to the health center. There may be additional 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.

Alcohol and Drug Awareness Education/ Training

Darlene Hartle, R.N.C., B.S.N., interim director

Keeling Health Services Center

Telephone: 393-1949

E-mail address: dhartle@clarion.edu

The Alcohol and Drug Awareness Education Training Office provides alcohol and other drug intervention, prevention, and educational services to students and employees of the university community. An Alcohol Education Program is conducted for self-referred students, students who have violated university alcohol policies, and students referred by other members of the university community.

The Alcohol and Drug Awareness Education Training Office also performs alcohol and drug use assessments and makes referrals to treatment facilities when necessary. Educational programs are presented to classes and campus and community groups. Alcohol and drug use assessments, referrals, and support activities are also provided. An inventory of current alcohol and drug information and literature is maintained. The office also assures compliance with state and federal regulations concerning dissemination of drug and alcohol information.

Health Insurance

Students are individually responsible for fees and charges associated with the provision of medical diagnoses, treatment, and services. This includes charges made by the Keeling Health Center and other hospitals, clinics, physicians, providers, and pharmacies. Without insurance, the cost involved in obtaining necessary medical services could jeopardize a student's ability to continue his or her education. Therefore, we strongly urge such coverage be assured prior to enrollment. Parents who plan to continue their son or daughter on family insurance plans should contact the insurance provider to determine how university entrance may affect dependent coverage. This is particularly important under managed care plans. Students who are not insured should contact Student Affairs or an insurance agent to obtain appropriate insurance coverage prior to university entrance. Note that university policy requires that students

have medical insurance coverage to be eligible for participation in university-sanctioned, sponsored, and/or approved activities. The assumption is that students participating in such activities are covered by medical insurance, and proof of coverage can be produced upon the university's request.

Housing

Barry S. Morris, Ph.D., director of residence services

228 Egbert Hall

Telephone: 393-2352

E-mail address: bmorris@clarion.edu

Website: www.clarion.edu/student/residencelife/reslife.htm

Off-Campus

Students not residing in university-supervised housing live in fraternity houses or rental facilities in the community, or they commute from home. The Office of Residence Life maintains a limited listing of available housing in the community. Householders listing available facilities must comply with all local, state, and federal regulations pertaining to rental units. Other sources of information are local newspapers and realtors.

All arrangements for housing in the community are negotiated between the student and the householder. The university does not approve or make recommendations for off-campus housing accommodations.

Residence Halls

The residential experience is considered to be an important component of a student's educational program, and students are encouraged to live on campus. Clarion University houses approximately 2,000 students in seven residence halls, which provide both single sex and coed by floor living arrangements.

Residence halls are staffed with full-time professionals and undergraduate and graduate assistants. Student rooms in the residence halls are furnished with beds, desks, chairs, dressers, and closets or wardrobes. Students should plan to furnish linens, blankets, pillows, bedspreads, desk lamps, a telephone, and other personal items. Local telephone service is included in the room charge. Among the additional options available to students in their rooms are: cable television, refrigerators, Internet computer access, aquariums, and lofts. Residence halls also offer coin-operated laundry services, lounges, study areas, and computer rooms. Kitchen facilities and microwave ovens are available for warming snacks and light cooking.

Housing space is distributed in proportion to the demand by class. Within each residence hall, there is a cross-section of students representing most aspects of a highly diverse student body, and housing assignments are made without regard to race, religion, color, ancestry, or national origin. Hall and roommate preferences stated on housing applications are given consideration in making assignments and are honored whenever possible.



Housing and food services are provided only on a combined basis for students living in residence halls. A meal ticket may be used only by the student to whom it is issued, and a room may be occupied only by the student to whom it is assigned. These agreements 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 or a change in student teaching or internship assignment.

A separate residence hall and food service application must be submitted for each year. All students returning to residence halls must submit a housing application card at the announced time. Housing information and applications will be mailed to new students prior to registration. After a room assignment is made, the student will be issued agreements to be signed and returned with a non-refundable deposit.

Fees for housing and food services are due and payable at the same time as other university 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 fees are listed in the refund section.

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

Judicial and Mediation Services

Scott P. Horch, M.A., director

212 Egbert Hall

Telephone: 393-1918

E-mail address: horch@clarion.edu

Website: www.clarion.edu/student/residencelife/judicial.htm

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 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 was recently added to assist students in resolving interpersonal conflicts. Trained mediators guide the process, and the parties voluntarily participate in a structured setting to reach a workable solution.

Libraries

Howard F. McGinn, M.S.L.S., M.B.A., dean

125 Carlson Library Building

Telephone: 393-2343

E-mail address: hmcginn@clarion.edu

Website: www.clarion.edu/library/

Assistant Professors: Clemente, Decker, Gamaluddin, Glotfelty, Johnson, Knickerbocker, Martin, Stempeck, Webb

Carlson Library on the Clarion campus is a new \$15 million state-of-art facility. Extensive connectivity to the campus network and the Internet is provided through building-wide wireless and standard data networks. There are 140 computer workstations in four computer laboratories available for student use. The library is home to the university's Center for Academic Excellence and 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 new facility.

Mission

The mission of the Clarion University Libraries, comprised of the Carlson Library on the Clarion Campus and Suhr Library on the Venango Campus, 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 and Suhr libraries have combined collections of more than 1.7 million volumes in various formats, including books, microforms, periodicals, 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 library's Webpage. The libraries are committed to providing excellent service to users. Qualified library faculty and staff are available in each of the libraries' public service areas 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 Internet resources including services which provide full-text access to thousands of academic journals.

Minority Student Services

Rogers J. Laugand, M.A., director

128 Becht Hall

Telephone: 393-2043

E-mail address: laugand@clarion.edu

Website: www.clarion.edu/admin/minorityservices/mss.htm

The Office of Minority Student Services provides support for the psychological, emotional, social, and academic adjustment of minority students to college life. The office serves as a resource for diversity issues to the entire campus and promotes understanding of diversity among minority and majority students, faculty, administrators, and staff. The vision of Minority Student Services includes the achievement of true integration as shared power, building respect for distinct cultures, and the infusion of various perspectives in decision-making and problem solving. The Office of Minority Student Services also focuses on the retention of minority students. In addition, Minority Student Services acts as a coordinating agency for other minority organizations.

Parking and Automobile Regulations

All provisions of the Vehicle Code of the Commonwealth of Pennsylvania as supplemented by parking regulations issued by the chancellor, 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 will be 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.



Student Activities

The purpose of the Student Activities Program at Clarion University is to enhance the student's collegiate experience by providing a broad variety of programs and opportunities for involvement in campus life. With approximately 130 recognized clubs and organizations on campus, there are many avenues for involvement with an organization whose members share a common interest. Programming groups also offer many social, educational, and recreational programs as well as providing events for the campus community purely for fun and entertainment. The components of the student activities program include the Gemmell Student Complex, the Student Recreation Center, the University Activities Board, Greek life, and the Community Services Learning office. For specific information on student activities and student organizations at Clarion University, please visit our Website.

Community Service Learning

Diana Anderson-Brush, M.A., director

Gemmell Student Complex

Telephone: 393-1865

E-mail address: cuservice@clarion.edu

Website: www.clarion.edu/student/studentaffairs/csl/

The Community Service-Learning (CSL) Office coordinates volunteer, community service and service-

learning programs; promotes service related opportunities to the university community; coordinates the community service off-campus service-study programs, and serves as a clearinghouse for students, employees and the community. The staff facilitates the placement of volunteers in appropriate community service settings with respect to the personal interests, course requirements, mandated service and/or career exploration. Detailed information on programs and special events can be found on the Website.

Gemmell Student Complex

David A. Tomeo, M.A., interim director

251 Gemmell Student Complex

Telephone: 393-2311

E-mail address: dtomeo@clarion.edu

Website: www.clarion.edu/student/studentaffairs/gemmell.htm

The Gemmell Student Complex is the student center and the newly constructed student recreation center at Clarion. In addition to casual lounges, six meeting rooms, a conference room, a TV lounge, and the Minority Student Services lounge, the student center also provides a large multi-purpose room, an aerobics room, and three racquetball courts. Many of the campus organizations hold their meetings or sponsor major events at the student center.

Also housed in this facility are the University Book Center, the Reimer Snack Bar, the Ritazza Coffee House, a computer lab, and offices for several of the major campus student organizations, including the Student Senate, the University Activities Board, and the student newspaper, the Clarion Call. Lockable file cabinets and storage cabinets are available to student organizations that do not have office space. There are also administrative offices for the business manager of the Clarion Student Association, the director of Community Service Learning, the director of Minority Student Services, the programming and development center, and the Clarion University Credit Union.

Greek Life

Shawn Hoke, M.Ed., assistant director

247 Gemmell Student Complex

Telephone: 393-1865

E-mail address: shoke@clarion.edu

Website: www.clarion.edu/student/studentaffairs/greeklife.htm

Membership in a fraternity or sorority provides an opportunity for students to enhance the values of a university education by fostering scholarship, self-discipline, and leadership development through participation in university activities and community philanthropic services. The membership of the fraternities and sororities at Clarion University totals approximately 700 men and women.

The Panhellenic Council (PHC) and the Interfraternity Council (IFC) are the governing bodies of the sororities

and fraternities respectively. Each council is composed of delegates from each Greek social letter organization. It is the councils' responsibility to promote cooperation among the groups and to coordinate the membership drive, new member education, and to provide educational and social programs related to Greek Life. The PHC and IFC advisor also serves as a resource to individual chapters and their members with regard to goals, direction, and development.

Intercollegiate Athletic Program

Robert D. Carlson, M.Ed., director

112 Tippin Gymnasium

Telephone: 393-1997

E-mail address: rcarlson@clarion.edu

Website: www.clarion.edu/athletics

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 nine men's and nine women's varsity programs. The men's programs are baseball, basketball, cross country, football, golf, swimming and diving, indoor and outdoor track and field, and Division I wrestling. The women's programs are basketball, cross-country, 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 5,000 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 newly renovated weight room is located in the gym, which is used for intercollegiate athletics and physical education classes.

Intramural Program

Intramural programs are provided for men and women students by funds from the student activity fees allocated by the Student Senate. The program is planned and supervised by the Department of Sports and Recreation. There is intramural competition in more than 50 activities, including flag football, soccer, volleyball, chess, bowling, table tennis, basketball, wrestling, badminton, billiards, swimming, softball, track and field, water basketball, golf, and other activities where interest is sufficient. The intramural office is housed in the Student Recreation Center and many of the intramural events are held in this facility. Ongoing fitness counseling is available as well as instruction on how to use the strength and cardio equipment.

Music Program

Department of Music,

Lawrence J. Wells, D.M.A., chair

215 Marwick Boyd Fine Arts Building

Telephone: 393-2287

E-mail address: wells@clarion.edu

Website: www.artsci.clarion.edu/music

- **Brass Ensemble** offers students 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 and singing in a large ensemble the opportunity to sing repertoire from the Renaissance to the 20th Century. Membership is by audition.

- **Jazz Band** Performance literature includes representative works for jazz band, with emphasis on recent trends in composition and arranging. Membership is by audition.

- **Madrigal Singers** is a group of approximately 20 students who perform choral chamber literature from the major period in the history of Music. Membership is by audition.

- **Marching Band's** repertoire ranges from classics and contemporary to traditional fight songs. The Golden Eagle Marching Band appears at all home football games and leads the annual Autumn Leaf Parade. Membership is by audition.

- **Percussion Ensemble** offers students the opportunity to study and perform chamber music for percussion instruments. Includes contemporary works, transcriptions of early music, and music of various ethnic groups. Membership is by audition.

- **Show Choir** is a select group of 12 singers and a small back-up band. Their performances include singing, dancing, staging, and choreography which is complemented by appropriate costumes. Membership is by audition.

- **String Ensemble** provides students the opportunity to perform chamber works for strings. Membership is by audition.

- **Symphonic Band** is an ensemble that performs representative works drawn from traditional and contemporary literature. Auditions are not required.

- **Symphony Orchestra** brings together string and wind players dedicated to the performance of orchestral literature. Membership is by audition.

- **Wind Ensemble** provides wind and percussion players on campus opportunity to perform significant wind literature from the Renaissance to the 20th century. Membership is by audition.

- **Woodwind Ensemble** offers students the opportunity to perform literature for woodwind instruments. Membership is by audition.

New Student Orientation

Michelle Kealey, M.Ed., director of orientation

251 Gemmell Student Complex

Telephone:

E-mail address: mkealey@clarion.edu

Website: www.clarion.edu/student/residencelife/orientation/indexa.html

All incoming students are invited to attend an orientation session. Traditionally nine two-day sessions are scheduled during the months of June and early July. The program is designed to accommodate approximately 250 students/guests per session, and spaces are granted on a first-come, first-served basis. Parents are welcome and encouraged to attend with their sons or daughters.

The program is intended to help new students make a smooth transition to the university environment. Students have the opportunity to take English, mathematics, and foreign language placement exams, and to complete course selection.

Program information and registration materials are mailed, in late March, to students who have been accepted to Clarion and who have paid an admission fee.

Returning adult and transfer student populations are invited to a special one-day session, and students entering the university in January are invited to a winter orientation session.

Speech and Dramatic Organizations

Department of Speech Communication and Theatre,

Barry McCauliff, M.A., chair

149 Marwick-Boyd Fine Arts Building

Telephone: 393-2284

E-mail address: mccaullif@clarion.edu

Website: www.artsci.clarion.edu/sct

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.

PI KAPPA DELTA is a national honorary society in forensics. Active debate and individual events team members earn the right to membership in Pi Kappa Delta.

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.

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.

ZETA PHI ETA, national professional fraternity in communication arts and sciences, provides professional support by the American Alliance for Theatre and Education and the National Communication Association.

Student Government

Through participation in student government, students have an opportunity to gain experience in democratic living, leadership, and self-government. All students become members of the Clarion Students' Association (CSA) upon payment of the CSA activity fee, and thereby are eligible to participate in the election of the Student Senate, the governing body of the association. The Student Senate is responsible for expenditure of student activity fees through allocations to various activities and organizations. The senate has an important relationship to other operations such as the University Book Center and the Clarion Students' Association. It also appoints student representatives to various standing committees of the university.

Other leadership opportunities are provided through the governing boards of the Panhellenic Council, Interfraternity Council, University Activities Board, Interhall Council, residence hall councils, and through the 130 other recognized student organizations.

Student Recreation Center

Lori A. Sabatose, M.A., director

104 Student Recreation Center

Telephone: 393-1667

E-mail address: lsabatose@clarion.edu

Website: www.clarion.edu/student/residencelife/rec_center/index.html

The Student Recreation Center was first opened in October 1999. This student fee-funded 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-by-25 foot climbing wall with four belay stations, a stretching area, a cardiovascular area, and a weight room. Equipment includes a variety of steppers, elliptical cross trainers, treadmills, stationary bicycles, and a rowing machine. 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. Indoor equipment, such as basketballs, volleyballs, and tennis balls and racquets are available as well. The recreation 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 &



fitness director. A majority of the programs sponsored by the intramural department are held in the student recreation center. All currently enrolled students at the Clarion campus are admitted to this facility and have use of all equipment by simply presenting a Clarion University ID card.

University Activities Board

Website: eagle.clarion.edu/~grads/s_uab

University Activities Board (UAB) is the primary student programming organization and provides the majority of events at Clarion University. Through the work of the students serving on one of the seven committees of the UAB, many of the major cultural and entertainment programs are planned and organized. UAB receives its funding through an allocation of the student activity fee from the Student Senate. Examples of the programming provided by UAB include Homecoming events, novelty and variety entertainment, major concerts, speakers, musicians, and performances by noted professionals in the fine arts.

Academic Information



Academic Information

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 Music, 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 183.

Program Listing

Key:	*	Concentration only
	**	Certification only
	***	Minor program
	#	Post-Master's Certificate of Advanced Studies
	+	Concentration only, degree earned in Arts and Sciences program of choice
Accountancy (see page 136)		B.S.B.A.
Allied Health (see page 192)		A.S.
Anthropology (see page 52)		B.A., ***
Art (see page 54)		B.A., B.F.A.
2-D Studio (see page 54)		***
3-D Studio (see page 54)		***
Art History (see page 54)		***
Ceramics (see page 54)		*
Drawing (see page 54)		*
Dual Drawing (see page 54)		*
Fiber/Fabric (see page 54)		*
Graphic Arts (see page 54)		*
Painting (see page 54)		*
Printmaking (see page 54)		*
Sculpture (see page 54)		*
Athletic Training Program (see page 195)		B.S.Ed.
Biology (see page 58)		B.A., B.S., M.S.
Biotechnology (see page 59)		***
Ecology and Evolutionary Biology (see page 59)		*
Business Administration (see page 133)		A.S., M.B.A., ***
Accountancy (see page 136)		*
Management (see page 145)		*
Chemistry (see page 67)		B.A., B.S., ***
Chemistry/Business (see page 67)		*
Chemistry/Engineering Co-op (see page 67, 76)		*
Coaching Verification (see page 166)		**, ***
Communication (see page 70)		B.S.
Instr. Technology Specialist (see <i>Graduate Catalog</i>)		
Communication and Mass Media Technology (See <i>Graduate Catalog</i>)		M.S.

Communication Sciences and Disorders (see page 155)		B.S., M.S.
Computer Science (see page 73)		B.S., ***
Early Childhood Education (see page 158)		B.S.Ed.
Early Childhood Education/Special Education (see page 176)		.. **
Earth Science (see page 83)		B.S.
Economics (see page 76, 138)		B.A., B.S.B.A., ***
Elementary Education (see page 157)		B.S.Ed., M.Ed.
Elementary Education/Early Childhood (see page 158)		B.S.Ed.
Elementary Education/Library Science (see page 165)		B.S.Ed.
Elementary Education/Special Education (see page 176)		B.S.Ed.
Elementary Health (see page 169)		*
Engineering Co-op Program (see page 78)		*
English (see page 77)		B.A., M.A.
Literature (see page 77)		***
Writing (see page 78)		***
Environment and Society (see page 59)		***
Environmental Biology (see page 58)		B.S.
Freshwater Ecology (see page 58)		*
Marine Ecology (see page 58)		*
Terrestrial Ecology (see page 58)		*
Environmental Education (see page 158)		**
Environmental Geoscience (see page 83)		B.S.
Film Studies (see page 99)		***
Finance (see page 141)		B.S.B.A.
French (see page 89)		B.A., ***
Geography (see page 87)		B.A., B.S., ***
Geographic Information Science (see page 87)		***
Geology (see page 83)		B.S.
German (see page 90)		***
Gerontology (see page 90)		***
History (see page 91)		B.A., ***
Ancient Mediterranean Studies (see page 91)		***
Black Studies (see page 91)		***
Humanities (see page 94)		B.A.
Industrial Mathematics (see page 96)		B.S.
Industrial Relations (see page 145)		B.S.B.A.
Information Systems (see page 73)		B.S., ***
International Business (see page 145)		B.S.B.A., ***
Legal Business Studies (see page 187)		A.S.
Legal Assistant (see page 187)		*
Liberal Studies: Arts and Sciences (see pages 94)		A.A., B.S.
Library Science (see page 170)		B.S.Ed., M.S.L.S.
Library Science/Arts and Sciences (see page 95)		.. +
Management (see page 145)		B.S.B.A.
Management/Library Science (see page 145)		B.S.B.A.
Marketing (see page 148)		B.S.B.A.
Mathematics (see page 95)		B.A., B.S., M.Ed., ***
Mathematics/Applied (see page 96)		*
Mathematics/Engineering Co-op (see page 96)		*
Mathematics/Statistics (see page 96)		***
Medical Technology (see page 58)		B.S.
Molecular Biology/Biotechnology (see page 58)		B.S.
Music Education (see page 173)		B.S.Ed.
Music—Elective Studies in Business (see page 105)		B.M.
Music (see page 105)		***
Natural Sciences (see page 59)		B.A.
Nursing (see page 191)		A.S.N., B.S.N., M.S.N.
Family Nurse Practitioner and Educator (see <i>Graduate Catalog</i>)		

Public School Nursing (see page 196)	**
Philosophy (see page 111)	B.A., ***
Religious Studies (see page 111)	***
Physics (see page 113)	B.A., B.S.
Physics/Engineering Co-op (see page 76)	*
Political Science (see page 116)	B.A., ***
Psychology (see page 119)	B.A., B.S., ***
Radiologic Sciences (see page 195)	B.S.
Reading (see page 151)	M.Ed.
Reading Specialist (see page 151)	**
Real Estate (see page 141)	B.S.B.A.
Rehabilitative Sciences (see page 174)	B.S., M.S.
Developmentally Disabled (see page 175)	*
Gerontology (see page 175)	*
Substance Abuse (see page 175)	*
Rehabilitative Services (see page 187)	A.S.
Science Education (see page 158)	M.Ed.
Secondary Education, Biology (see page 159)	B.S.Ed.
Secondary Education, Chemistry (see page 159)	B.S.Ed.
Secondary Education, Communication Arts (see page 159)	B.S.Ed.
Secondary Education, Earth & Space Science (see page 159)	B.S.Ed.
Secondary Education, English (see page 159)	B.S.Ed.
Secondary Education, French (see page 159)	B.S.Ed.
Secondary Education, General Science (see page 159)	B.S.Ed.
Secondary Education, Mathematics (see page 159)	B.S.Ed., M.Ed.
Secondary Education, Physics (see page 159)	B.S.Ed.
Secondary Education, Social Studies (see page 160)	B.S.Ed.
Secondary Education, Spanish (see page 160)	B.S.Ed.
Social Sciences (see page 122)	B.A.
Sociology (see page 122)	B.A., ***
Social Work (see page 122)	***
Sociology/Psychology (see page 125)	B.A.
Spanish (see page 99)	B.A., ***
Special Education (see page 174)	B.S.Ed., M.S.
Special Education/Early Childhood (see page 176)	**
Special Education/Rehabilitative Sciences (see page 175)	B.S.Ed.
Speech Communication (see page 125)	B.A., ***
Theatre (see page 125)	B.A., B.F.A.
Acting (see page 126)	*, ***
Dance (see page 126)	***
Musical Theatre (see page 126)	*
Technical (see page 126)	***
Technical Design/Direction (see page 126)	*
Women's Studies (see page 131)	***

- establish a climate of purposeful learning which maximizes student growth and minimizes student withdrawal.

Advisor Roles and Responsibilities

In the advisor-advisee relationship, the student is primarily responsible for seeking academic advisement from the advisor. The central roles and responsibilities of the advisor are to:

1. Assist students in developing sound academic programs by:
 - a. exploring with students their individual interests, abilities, and goals;
 - b. assisting students in developing an academic plan that satisfies graduation requirements;
 - c. offering advice in the selection and sequencing of courses which meet requirements for general education, major, and electives;
 - d. monitoring student progress and helping students make desired adaptations in their programs.
2. Make known to students the programs, resources, and services available in the university.
3. Be a responsive listener to students and to assist them by referral to specialized sources of help when needed.
4. Discuss matters of general university adjustment with students.
5. Keep informed about university policies, regulations, programs, and procedures in order to accurately answer student questions and concerns.

Student Roles and Responsibilities

Each student must bear ultimate responsibility for the development of his or her academic program and for meeting all graduation requirements.

In the advisor-advisee relationship, the students' responsibilities are to:

1. Meet with their advisor as frequently as necessary to keep the advisor informed about changes in progress, course selection and career goals;
2. Seek sources of information which will assist them in making life/career decisions;
3. Contact the advisor when confronted with major academic problems and to keep the advisor aware of other problems which may affect their academic performance;
4. Meet all graduation requirements, following the academic plan established in consultation with their advisor;
5. Maintain personal records of academic progress and to resolve any discrepancies on the official grade reports; and
6. Become knowledgeable about university regulations, program requirements, and procedures.

For more information on advising, contact the University Advising Center in 111 Becht Hall or the center's Website, www.clarion.edu/advising.

General Information

Academic Advisement

Purpose

It is the purpose of the academic advisement program at Clarion University to:

- assist students in their academic growth and development;
- promote advisor-advisee relationships characterized by trust, mutual respect, and openness;

Academic Policies and Opportunities

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, *Student Handbook and Calendar*; *Residence Hall Handbook*; *Student Rights, Regulations, and Procedures 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**—when specifically prohibited in advance by the instructor, collaborating with another person in the preparation of notes, themes, reports, or other written work offered for credit.
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. Consequences 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. 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. Students have the right to appeal instructor decisions (*Student Rights, Regulations, and Procedures Handbook*) either through the grade appeal process (see section on “Student Rights in the Classroom”) or directly to the Conduct Board (see section on Adjudication Appeals), depending on the nature of the dispute. Sanctions extending beyond a particular course, such as suspension or dismissal from an academic program or from the university, can only be imposed as the result of complaints filed under the

Disciplinary Procedures Code and after formal hearings under this code.

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 up to 18 semester hours of work excluded from their Quality Point Average (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 by requesting readmission.

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 64 semester hours are earned, the student must have a 2.00 QPA. Removal of up to 18 credits 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.

Accelerated Program

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

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 third Fridays. They are designed for adult learners and non-traditional students who have gained college-level knowledge through prior education or training. The College-Level Examination Program includes five general examinations and approximately 31 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	500	3
Humanities	HUM 120	500	3
Mathematics	MATH 112	500	3
Natural Sciences	PHSC 111	500	3
Social Science and History	Social Science Elective	500	3

Subject Exams	Equivalent	Scores	Cr
American Government	PS 211	50	3
American History I: Early Colonization of 1877	HIST 120	50	3
American History II: 1865 to Present	HIST 121	50	3
Educational Psychology	ED 122	50	3
General Psychology	PSY 211	50	3
Human Growth and Development	PSY 331	50	3
Introductory Macroeconomics	ECON 211	50	3
Introductory Microeconomics	ECON 212	50	3
Introductory Sociology	SOC 211	50	3
Western Civilization I: Ancient and Near East to 1648	HIST 111	50	3
Western Civilization II: 1648 to Present	HIST 113	50	3
College French Level 1	FR 151	50	3
College French Level 2	FR 152	50	3
College German Level 1	GER 151	50	3
College German Level 2	GER 152	50	3
College Spanish Level 1	SPAN 151	50	3
College Spanish Level 2	SPAN 152	50	3
American Literature	ENG 225	50	3
Analysis and Interpretation of Literature	ENG 130	50	3
College Composition	ENG 111	50	3
English Literature	ENG 221	50	3
	ENG 222	50	3
Calculus with Elementary Functions	MATH 232	50	4
College Algebra	MATH 110	50	3
College Algebra—Trigonometry	MATH 171	50	4
General Biology	BIOL 111	50	4
General Chemistry	CHEM 153	50	3
	CHEM 154	50	3
Information Systems and Computer Applications	CIS 110	50	3
Introductory Accounting	ACTG 251	50	3
Introductory Business Law	BSAD 240	50	3
Introduction to Management	MGMT 120	50	3
Principles of Marketing	MKTG 160	50	3

For additional information and a CLEP registration form, contact: CLEP Test Administrator, Clarion University of PA, 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 PA, 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. This 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 14 subject areas in this 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.

3. Transfer of Credits Earned by Examination

For transfer students, credits granted by way of CLEP or Advanced Placement Examinations at other accredited institutions will be accepted if the minimum scores on such examinations meet the minimum standards of Clarion University.

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
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
English	3, 4 or 5	3	ENG 130
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
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	4	PH 258
Physics C—Electricity/ Magnetism	4 or 5	4	PH 259
Political Science	3, 4, or 5	3	PS 210, and 211
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

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 quality-point average 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.

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 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 following receipt of a medical excuse from the student's physician or a copy of the military orders from the student's military command.

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.

Extended Programs

Arthur J. Acton, Ph.D., assistant vice president for academic affairs

130 Harvey Hall
Telephone: 393-2778
E-mail address: aacton@clarion.edu

The Office of Extended Programs coordinates all non-credit programming and most off-campus credit programming. This includes Distance Education, the e-University, Extended Studies, the Center for Teaching Excellence, the Health Science Education Center, and Continuing Education.

Distance Education and Extended Studies

Lynne M. Fleisher, assistant to director

330 Harvey Hall
Telephone: 393-2778
E-mail address: lfleisher@clarion.edu
Website: www.clarion.edu/academic/distance/distance.htm

A number of credit courses are provided each semester using distance education technologies. Some classes are delivered through the World Wide Web and some by Interactive Video Conferencing (ITV). These ITV courses link a class at an origination site with a distant site. Currently, ITV classes are offered between the campuses, including Venango, Clarion, and Pittsburgh as well as to various other sites around the state. A fuller description and list of all current course offerings are available at www.clarion.edu/academic/distance/distance.htm

Extended Studies coordinates programming for university credit not on one of the university campuses or sites. This includes programs in area high schools or other facilities to provide courses or degree programs to special populations or groups.

e-University

Irene Smith, director

Montgomery Hall, Venango Campus
Telephone: 814-676-6591, ext. 1304
E-mail address: ismith@clarion.edu
Website: www.clarion.edu/euniversity

The e-University of Western Pennsylvania is a collaborative venture between Clarion University and Indiana University of Pennsylvania. These two universities, working together, offer students the opportunity to earn an entire degree over the Internet.

Each degree offered through the e-University is hosted and granted through one of the two participating universities. The courses required for each degree are provided by both universities and are taught by the same faculty as currently teaching in the traditional classrooms. Degrees received through an e-University program are the same as those delivered through traditional on-campus classes. A full list of courses and degree programs are available at <http://www.clarion.edu/euniversity/>

The Center for Teaching Excellence

Katy Wolfrom, director

128 Harvey Hall
Telephone: 393-2778
E-mail address: kwolfrom@clarion.edu

The mission of the Center for Teaching Excellence is to identify specific educational training needs for the area educational community, develop programs to meet those needs and deliver those programs. Established as an outreach to educators in the community, the center serves as the single point of contact for area educators at Clarion University.

Health Science Education Center

Nancy Falvo, Ph.D., director

347 Main Street, Clarion, PA 16214

Telephone: 814-227-1901

E-mail address: nfalvo1@clarion.edu

The mission of the Health Science Education Center is to promote healthy life-styles through dynamic educational opportunities for area residents of all ages. Initially, the goal of this newly-created center is to provide health education outreach programs to area students in grades K-12. Additional programs are being developed for community groups that will serve members of all ages. The focus will expand in September 2003, when the center will move its operations to a renovated building on Main Street. The high tech center will house teaching theaters and interactive exhibits that will be available for school field trips and other community programming.

Continuing Education

Juanice F. Vega, Ph.D., assistant director

210 Still Hall

Telephone: 393-2227

E-mail address: jvega@clarion.edu

Website: www.clarion.edu/academic/continuingeduc/

The major thrust of continuing education is to organize and make available to the community the vast resource of instructional talent that resides in the area. Educational programs of all types, presented in almost any format and developed to meet the needs of a variety of audiences, is possible through continuing education.

Generally, continuing education activities will 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.

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.

Nondiscrimination on the Basis of Disability

Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 have provided the framework for those individuals with disabilities to not be discriminated against. 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.*

The Disabilities Services Office serves as the university's primary vehicle for providing assistance to students with physical and/or learning disabilities. Students are encouraged to contact the coordinator in B20 Campbell Hall to discuss their need for disability related services. Also, as part of the university's registration process, students are provided with a form which enables them to notify the university of request for accommodations and services that are related to a disabling condition. After receipt of this form, the coordinator of the Disabilities Services Office will contact each student to discuss the specific request(s) and gather additional information if necessary.

Information on services for students with disabilities may be obtained by contacting the coordinator, Disabilities Services Office, B20 Campbell Hall, 814-393-2249.

Inquiries regarding services and facilities accessibility may also be obtained by contacting the assistant to the president for social equity, 207 Carrier Hall, 814-393-2000.

Reserve Officers' Training Corps (ROTC)

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 Corp (ROTC) Program provides leadership training that students can apply throughout their careers regardless of major.

Qualified students complete the ROTC advanced course as they fulfill the requirements for their undergraduate degree from Clarion University. Students enroll as visiting students at IUP in the Fall Semester of their junior year, attending one seminar and one lab per week at IUP's campus. Students who pursue graduate degrees at Clarion or IUP 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 the 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 IUP Army ROTC website at www.iup.edu/rotc.

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.

Student Records

Student academic and personal records are confidential in nature and shall be released only to appropriate faculty and administrative officers and to parents and guardians if the student is a dependent. Release of these records to other persons, 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 by him or her in writing. There is a limit of three transcripts per request per day. All enrolled, degree-seeking students are charged a one-time \$15 transcript fee which is added to their statement of charges from the Accounts Receivable Office.

Clarion University uses students' Social Security numbers solely for identification and record-keeping purposes. Disclosure of the SSN is not mandatory, and alternative identification numbers will be issued if requested.

Grade Release Policy

Public Law 93-380 (The Family Educational Rights and Privacy Act of 1974) prohibits the release of educational records, other than to certain defined exceptions, without the student's consent. One such exception is Section 438(b)(1)(H) which allows release of educational records to "Parents of a dependent student of such parents, as defined in Section 152 of the Internal Revenue Code of 1954."

The Office of the Registrar will send grades to parents under the provisions of Section 438 or if the student has completed an Authorization for Parental Access to Student Records Form. Grade reports of students who are not dependents, meaning they are not so claimed by parents for income tax purposes, will be sent to the students at their home address.

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 programs and activities. The leadership of the university recognizes the interdependence of nations and peoples throughout the world.

Clarion University welcomes international students representing a range of nations. International students are important members of the Clarion University community. Their presence reflects a deep appreciation for their intellectual and cultural contributions to this community. The international students on the Clarion campus also present the university with the opportunity to significantly influence future leaders and scholars around the world.

Clarion University is committed to providing a variety of study abroad and exchange programs for American students. Exchange agreements offer Clarion students the opportunity to pay tuition to Clarion while attending an international university of their choice. There are summer

options for students who wish to either learn a foreign language or improve on existing foreign language skills.

The Office of International Programs (OIP) coordinates and administers all international-related activities on campus, including the International Student Office, Study Abroad Programs, and Exchange Programs for faculty and students.

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 are normally a pre-session and two consecutive five-week sessions. Interested people should contact the Office of Academic Affairs for details.

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 27 credits in residence the opportunity to take advantage of courses, programs, or experiences offered at the other 13 institutions of the 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.

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

Writing Center

Kathleen A. Welsch, Ph.D., Director
Office: 112B Davis Hall
E-mail address: kwelsch@clarion.edu
Website: www.artsci.clarion.edu/english/wc

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

Because writing is a complex process that benefits from feedback along the way, Writing Center consultants assist students at whatever stage of writing is most problematic for them: understanding the assignment, generating ideas, deciding on an approach, drafting, organizing, developing ideas, revising, addressing sentence structure, grammar, and punctuation concerns, or documenting sources. 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. The quality of work submitted to a professor for evaluation is the sole responsibility of the student writer. 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.

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.

Writing consultants are graduate and undergraduate students who have undergone 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.

Academic Support Services

Louis F. Tripodi, Ph.D., chair

B11 Campbell Hall
Telephone: 393-2249
E-mail address: ltripodi@clarion.edu
Website: www.clarion.edu/departments/acad/
Office: B11 Campbell Hall

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

Academic Support Center

Lou Tripodi, Ph.D., director

Office: B11 Campbell Hall
Telephone: 393-2249
E-mail address: ltripodi@clarion.edu
Website: www.clarion.edu/admin/academicssupport/

The Academic Support Center provides services to students who may encounter some form of difficulty with their courses and/or need instruction in basic skills development. The Academic Support Center 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, and critical thinking skills.

Academic Skills Courses

AS/MATH 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, developing mathematics text-reading abilities, including the study of vocabulary unique to the mathematics discipline, developing estimation skills, interpreting data, mental mathematics, and critical thinking. Major learning modalities are written response, calculator use and experimentation, analysis activities, and problem-solving.

AS 100: COLLEGE READING / STUDY SKILLS 3 s.h.

Develops reading, writing, research, and study skills needed at the college level. Intended for underclass students only. The reading/study skills required at the college level. Students learn to organize study plans. Emphasizes application of these skills to courses students are studying. No prerequisite. Each semester.

AS 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. Each semester.

AS 260: CAREER EXPLORATION AND PLANNING 3 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

B20 Campbell Hall

Telephone: 393-2095

E-mail address: jmay@clarion.edu

Website: www.clarion.edu/admin/academicsupport/

The Disabilities Services Office serves as the university's primary vehicle for providing assistance to students with physical and/or learning disabilities. Students are encouraged to contact the coordinator of B20 Campbell Hall to discuss their need for disability-related services. Also, as part of the university's registration process, students are provided with a form which enables them to notify the university of request for accommodations and services that are related to a disabling condition. After receipt of this form, the coordinator of the Disabilities Services Office will contact each student to discuss the specific request(s) and gather additional information if necessary.

Information on services for students with disabilities may be obtained by contacting the coordinator, Disabilities Services Office, B20 Campbell Hall, 814-393-2095.

Inquiries regarding services and facilities accessibility may also be obtained by contacting the assistant to the president for social equity, 207 Carrier Hall, 814-393-2000.

Student Support Services

The 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 interested in obtaining information about the program should contact the director, Student Support Services Program, B20 Campbell Hall, 814-393-2347.

Educational Opportunities Program—Act 101

Stevan A. McCrory, Ph.D., director

B10A Campbell Hall

Telephone: 393-1878

E-mail address: smccrory@clarion.edu

Website: www.clarion.edu/admin/academicsupport/eop/eop.htm

Educational Opportunities Program/Act 101 increases students' academic skills, abilities, and motivation. Most students enroll through a six-week summer experience. They may earn up to six academic credits. Students participate in an extensive orientation to university life, explore career options, and develop leadership potential. During the academic year, regularly admitted students are selected for the program. Faculty may recommend students for participation, if space is available. Support services offered include academic advising, financial aid counseling, individual analysis of study habits, content tutoring, and assistance in career planning and decision making. The program also sponsors extracurricular activities intended to enrich the student's total experience. All students accepted into this program must meet eligibility requirements as established by the institution and the Pennsylvania Department of Education.

Educational Talent Search Program

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

Special Projects Center

Telephone: 393-2071

E-mail address: rmcmillen@clarion.edu

Website: www.clarion.edu/edu-humn/ets/ets.htm

As part of Clarion University's mission to serve community residents, Educational Talent Search (ETS) serves 950 participants annually in Clarion and Venango counties. Talent Search assists people age 11-27 to complete secondary education programs and enroll in post-secondary education.

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

Student Support Services Program

Shelly Silvis, M.Ed., director

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Telephone: 393-2347

E-mail address: ssilvis@clarion.edu

Website: www.clarion.edu/ed-humn/sss.htm

Students admitted to the 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 AS 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.

Upward Bound Program

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As part of the university's commitment to serve the community, Clarion's Upward Bound Program is designed to generate, in selected area high school students, the academic skills and motivation necessary for success in college. The program operates in two segments—the academic year component and the summer residential component. Support services such as tutoring, visits to post-secondary educational institutions, and career and personal counseling are provided year-round. The six-week summer residential program offers program participants an opportunity to experience college life while residing on campus. Students receive intensive basic skills instruction

and exposure to a variety of cultural and social activities on- and off-campus, in addition to numerous opportunities to visit other college campuses. Students are chosen for the program based on eligibility criteria as established by the program and the U.S. Department of Education.

Admissions

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 show a minimal amount of education as evidenced by graduation from an approved secondary school or equivalent preparation as determined by the Division of Professional Certification.

Admission of Freshmen in August 2002 and 2003

Applicants for admission to the freshman classes in 2002 and 2003 should read and observe carefully the following procedure:

1. Contact the Admissions Office of the university for an application for admission.
2. Send the application form to the university along with an application fee of \$30 payable to Clarion University of Pennsylvania. This 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 registration deposit of \$50 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 of tuition.
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 or the American College Test in the junior year.
5. All liberal arts applicants and education applicants who intend to major in a foreign language must schedule an achievement test in the language, if that language has been studied in high school. The achievement tests are administered by the College Entrance Examination Board. Arrangements to take the tests may be made through the high school counselor.

- All applicants who intend to major in music education or music with elective studies in business must complete a musical audition and personal interview through the Department of Music.

High School Juniors—Early Admission

The objectives of the Clarion early admittance program for high school students who have completed their junior year are as follows:

- To afford excellent high school students an opportunity for course work of greater scope and depth than that offered by their high schools.
- To provide selected high school students an opportunity to experience a baccalaureate program.

The following criteria determine admission of high school students to full-time status:

- Completion of the junior year.
- Recommendation to the dean of enrollment management by the student's guidance counselor and high school principal. These letters should address motivation, interest, academic ability, and social maturity of the applicant.
- Superior achievement as evidenced by high school record.
- Superior achievements as evidenced by college entrance examination score. Students may take either the Scholastic Assessment Test (SAT) or the American College Test (ACT). Scores should be considerably higher than the national average.
- Written parental consent.
- The dean of enrollment management will arrange for an interview with the parents, department chair, and the dean, if necessary. Final decision rests with the dean of enrollment management.

All students accepted and enrolled are full-time college students and are subject to the same rules, regulations, and benefits as any other student.

High School Students—Summer and Part-Time College Study Program

The objectives of the Clarion University program for admitting selected high school students on a part-time basis are as follows:

- To afford able high school students an opportunity for course work of greater scope and depth than that offered by their high school.
- To provide selected high school students an opportunity to experience limited college work before undertaking a full baccalaureate program.

The following criteria determine admission of high school students to limited study:

- Completion of the sophomore year in high school.
- Recommendation to the dean of enrollment management by the student's guidance counselor and high school principal. These letters should address motivation, interest, academic ability, and social maturity of the applicant.

- Superior achievement as evidenced by high school record. Students who are in the top one-tenth of their class may be admitted regardless of college board scores. Students who score over 1,000 may be admitted if they are in the top one-fifth of their class.
- Superior achievements as evidenced by college entrance examination score. Students may take either the Scholastic Assessment Test (SAT) or the American College Test (ACT). Scores should be considerably higher than the national average.
- Written parental consent.
- The dean of enrollment management will arrange for an interview with the applicant and parents. The final decision rests with the dean of enrollment management.

Students who are accepted and enrolled will receive full course credits and are subject to the same rules, regulations, and benefits as any other student.

When a student achieves 9-11 credits, he or she must come to the Admissions Office for academic review. If the student has a 2.0 QPA (2.5 QPA for some majors) they must make a full application to the university to continue. If they do not have a 2.0 grade-point average, they must graduate from high school and reapply based on their high school record.

New Student Orientation

All new students are expected to attend one orientation session prior to their matriculation. Usually nine two-day sessions are conducted the second week in June through mid-July. Parents are welcome and encouraged to attend with their sons or daughters.

The primary objectives of the program are to help entering students make the transition from their previous environment to Clarion University and to enhance their success in 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 experienced and explored in large and small groups. Students will have an opportunity to meet with faculty members and receive some academic advisement prior to selection of courses for Fall Semester.

Registration forms and instructions for the New Student Orientation Program will be mailed during the Spring Semester prior to enrollment. Students entering in January also may attend orientation during the summer or the preceding December.

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 State System of Higher Education. Community college students who have earned the Associate of Arts (A.A.) or the Associate of Science (A.S.) degree in a transfer program containing a minimum of 30 credits of liberal arts courses for the A.S. and 45 credits of liberal arts courses for the A.A. shall be considered to

have an academic passport which will allow them to transfer to any State System of Higher Education university and receive credit toward graduation for all course work completed for credit for the associate degree. In addition, State System university students with a QPA of 2.0 or higher shall have an academic passport to transfer credit to or among system universities. It is understood that the academic passport does not guarantee admission to particular majors in that some academic programs may have additional requirements, including a higher QPA. In offering or accepting the academic passport, Clarion University shall be guided by the following principles:

1. Students seeking to transfer to a State System 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.)
2. Current or future mutually agreed upon institutional articulation agreements may provide for the transfer of credits in excess of the numbers contained in this policy. Transfer students who meet the conditions of published articulation agreements (i.e. 2+2) between the sending and receiving institutions shall not be required to take a higher number of credits for the baccalaureate degree than indigenous students of the receiving institution.
3. For students holding an Academic Passport, admission to a specific curriculum and acceptance of transfer credits in that curriculum at a participating university shall be determined by the university based upon the same established criteria required for indigenous students.
4. Students transferring from a Pennsylvania community college with an Academic Passport shall be entitled to the same rights and privileges accorded System students with junior status.
5. Clarion University shall look first to apply as many credits as possible toward the satisfaction of lower division general education requirements. Next Clarion University shall look toward applying the credits remaining to satisfy requirements in the major. Lastly, credits may be applied to satisfy elective requirements. The intent of this policy is to make full and complete use of credits earned in a qualified A.A. or A.S. degree program.
6. When a student transfers from one State System university to another, the record of all successfully completed undergraduate credits taken by the student at a System university shall be placed on Clarion's transcript. The credits shall be evaluated by Clarion to determine which shall apply to general education requirements, the major requirements of the program in which the student is enrolled, or electives. State System universities shall honor and accept credits earned at other State System institutions. It may not always be possible to apply all credits earned to the receiving institution's degree program. The intent of this policy, however, is to maximize the acceptance

and application of credits earned by a student at another System university.

7. Academic passport transfer students shall not be required to repeat or retake courses which they have already successfully completed at another accredited institution.

Transfer Policy and Admission with Advanced Standing

Clarion University welcomes applications from students who wish to transfer from another college or university to Clarion. Certain guidelines have been established to provide uniformity of transfer standards.

1. Students may transfer credits from regionally and/or nationally recognized, accredited institutions.
2. 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.
3. The initial evaluation of the transcripts takes place in the Admissions Office. Students will be informed, on request, which transferred courses will be accepted by the university. The final evaluation is done by the college dean of the student's major. The college dean will determine whether the course will be considered as part of the major or as an elective.
4. Credits are transferable, but grades and quality points are not.
5. Credits will transfer only if a student has earned a "C" grade or better in a course.
6. All courses transferred must be recognized in content and quality. Correspondence and distance-delivered courses are evaluated by the dean of the appropriate college/school.
7. 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.
8. Applicants who hold the Associate of Science or Arts degree from a Pennsylvania community college will be accepted by the university and granted two full years of academic credit. (See above Academic Passport principles.)
9. Clarion University generally does not accept more than 64 credits from two-year institutions. Applicants from Pennsylvania community colleges without the Associate Degree of Science or Arts will be processed as any other transfer applicant. (See above academic passport principles.)
10. See page 30 "Residence Requirements" for the number of credits that must be taken in residence at Clarion University.
11. Students enrolled at Clarion University may request written permission from their college dean to take courses at another institution. Grades and quality points for courses taken elsewhere do not transfer and cannot be used as repeats for grades previously earned at Clarion.

International Students

Students who have been graduated from high school (or equivalent) where the language of instruction is not English will be exempted from any general foreign language requirement at Clarion University. Neither academic credit nor life experience credit will be granted for knowledge of one's native language, except when specific courses offered at Clarion University are taken or challenged by examination.

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.

Part-Time Admissions

Students who wish to participate in the part-time admissions program must obtain a Quick Admit form from the Admissions Office.

A part-time student MAY apply for degree candidacy after the completion of 12 credit hours. A part-time student MUST apply and be approved for degree candidacy by the time he or she has earned 12 credit hours. This process includes the 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.

Withdrawals

Individual Course Withdrawal Policy

An undergraduate student is permitted five individual course withdrawals at Clarion University. Effective Fall Semester 1999, each continuing student will have five additional course withdrawal options, without regard to the number of previous course withdrawals. 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. These forms are available through the Office of the Registrar. 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 ninth weeks may be made without penalty. After the beginning of the 10th 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. Students on probation at the time of withdrawal from all classes who withdraw after the 12th week of the semester will not be permitted to return for the following semester unless the withdrawal is based on documented extenuating circumstances.

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. This is necessary for completion of the student's permanent record. Failure to comply with this 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.

Please see section on refunds under financial information. (See page 36 for financial implications of withdrawal.)

Academic Standards

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 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. A copy will be sent to the student's parent or guardian if the student is a dependent as defined on page 19 under "Grade Release Policy." 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** or less than a 2.00 **semester** average will be suspended. **Sophomore, junior, and senior** students on probation with less than a 2.00 cumulative or 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. A copy will be sent to the student's parent or guardian if the student is a dependent as defined on page 19 under "Grade Release Policy."

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, the suspension will be rescinded. These students will be continued on probationary status for the first regular semester following readmission, regardless of their academic performance during interim summer periods.
2. The student may appeal the suspension by submitting a typed letter to the Academic Standards Committee and may meet with the committee in person. Suspensions may be overturned 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 majors 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 in 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. These students may be readmitted through the Office of the Registrar by requesting academic renewal.

All students readmitted to the university after suspension will be placed on probation. 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 failed at Clarion may not be repeated at another university.

Class Standings

Class standings (freshman, sophomore, etc.) are determined by credits earned rather than by semesters of residence: freshmen, 1-31 credits; sophomores, 32-63 credits; juniors, 64-95 credits; seniors, 96-128 or more credits.

General Policies

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

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.

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, and admissions standards, which are under the control of the individual hospitals, are quite high.

**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. These academic standards are fully described under the College of Business Administration entry later in this catalog.

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 transferring into the College of Business Administration from other accredited colleges and universities must have earned a cumulative QPA of 2.50 on a 4.00 scale. This applies to all course work taken at all universities prior to attending Clarion University. Clarion University students transferring from majors outside the College of Business Administration must have earned either an overall QPA of 2.50 or a 2.50 QPA in their most recent full-time (12 or more credits) semester at Clarion University. Students transferring to Clarion University must take a minimum of 50 percent of their business credits at Clarion.

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 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.

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 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 economics Bachelor of Arts 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 all application forms in a timely fashion:
 - 1. Admission to program (minimum 60 credits by the end of the semester of application)
 - a. Act 33/151 and act 34 clearances
 - b. Pass the following PRAXIS-NTE tests:
 - 1) Pre-professional skills – reading
 - 2) Pre-professional skills – writing
 - 3) Pre-professional skills – listening
 - 4) Pre-professional skills - mathematics

- 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. 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.
- Specific general education requirements are printed in the schedule each semester.**

II. Admission to all certification programs

- A. Complete a minimum of 60 credit hours by the end of the semester that application for program admission is turned in (i.e., you may apply in March so you may register for summer/fall courses even though your 60 credits will not be completed until May or apply in October if 60 credits will be completed that December). The 60 credits must include six semester hours of introductory Professional Education courses (list follows) required by the academic major. **ALL courses require a grade of “C” or higher and the required QPA achieved as indicated.**

Required Professional Education Introductory Courses and required major QPA

MAJOR and REQUIRED INTRODUCTORY COURSES

Elementary Education	3.00
ED 110, ED 121	
Early Childhood Education	3.00
ED 110, ED 121	
Elementary/Early Childhood Education	3.00
ED 110, ED 121	
Elementary/Special Education	3.00
SPED 110 and ED 110 or ED 121	
Elementary/Library Science	3.00
LS 255 and ED 110 or ED 121	
Elementary/Environmental Education	3.00
ED 110, ED 122	
Environmental Education Certificate	3.00
ED 110, ED 122	
Special Education	3.00
SPED, 110, SPED 115, SPED 220*	
Special Education/Elementary	3.00
SPED 110 and ED 110 or ED 121	
Special Education/Early Childhood	3.00
SPED 110 and ED 110 or ED 121	
Rehabilitative Sciences	2.50
REHAB 110, REHB 115, REHB 227*	
Special Education/Rehabilitative Sciences	3.00
SPED/REHB 110, SPED/REHB 115	
Rehabilitative Services (Venango)	3.00
REHB 110, REHB 115	
Communication Sciences Disorders	3.00
CIS 125, CSD 150, CSD 156	
(CSD 150 is a required prerequisite for CSD 156)	
Library Science	3.00
LS 255 and ED 110 or ED 122	

Academic Information

Music Education (K-12)	3.00
ED 110, ED 122	
Secondary – All Majors	3.00
ED 110, ED 122	
Secondary w/Environmental Education	3.00
ED 110, ED 122	

* Courses are sequential

- 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 and ACT 34 clearances are required for program admission. **They are valid for one year only, so they will be required again before student teaching or externship. Forms are available in 101 and 127 Stevens.**
- D. PRAXIS I Tests: Complete and meet state-mandated minimum scores on the following PRAXIS-NTE tests: Pre-Professional Skills: Reading, Writing, Listening 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. All certification areas: 3.00; Rehabilitative Sciences: 2.50
- 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. ** Elementary and early childhood majors MUST meet the math requirements of MATH 111 and MATH 211 with a grade of "C" or higher BEFORE taking ELED 324 and BEFORE PROGRAM ADMISSION.

MAJOR	MATH REQUIREMENT
(Effective Fall 2001, 2nd college-level MATH course required) (1 listed below and 1 higher level)	

Elementary and Early Childhood	MATH 111
and (Prerequisite for any DUAL certification which includes Elementary or early childhood	MATH 211
	ELED 324: Teaching of Elementary Math)
Special Education	MATH 111 + 1 higher level
Rehabilitative Sciences	MATH 112 + 1 higher level
Library Science	MATH 112 + 1 higher level
Music Education (K-12)	MATH 112 + 1 higher level
Secondary Education:	
Biology, General Science and Earth and Space Science	MATH 171 + 1 higher level
Chemistry	MATH 171 OR 270 + 1 higher level
Physics	MATH 270 +1 higher level

MATHEMATICS CIS 163
All Others: English, Communication Arts, French MATH 112 + 1 higher level
(MATH 112 is recommended for 1 German, Spanish, Social Studies Course, plus one higher-level MATH)

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 SCT 113 (Fundamentals of Speech) with at least a grade of "C" prior to student teaching/internship.

TRANSFERS and READMITS must also meet the above requirements as well, 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 emphasis courses in elementary 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.
- A grade of "C" or higher in all required professional courses and all required major courses in area. Elementary and/or early childhood majors must also have "C" or higher in content competency courses and 15-credit emphasis courses.
- An overall cumulative QPA of 3.00. Please be aware that even though the courses require a "C" or higher, all "Cs" will not calculate a 3.00 QPA. You must have "As" and "Bs" to offset "Cs" and achieve an overall of 3.00.
- Satisfactory completion of all tests and clearances (Criminal Record and Child Abuse) necessary for field placement.

V. Graduation requirements

- Fulfillment of all university standards for graduation.
- An overall appropriate cumulative quality point average.
- A grade of "C" or higher in all required professional courses and all required courses in major area. In addition, content competency courses in elementary and early childhood, as well as 15-credit emphasis

in elementary ed require a “C” or higher. All proficiency courses also require a “C” or higher.

VI. Pennsylvania certification requirements at Clarion University

- A. Complete all program requirements and meet the standards of the Teacher Certification Program at Clarion University.
- B. Pass the appropriate examinations (in effect at the time you take the tests) required by the Pennsylvania Department of Education. To be taken by ALL MAJORS at second Semester Sophomore Year (48-60 credits):
 1. Pre-Professional Skills – Reading
 2. Pre-Professional Skills – Writing
 3. Pre-Professional Skills – Listening
 4. Pre-Professional Skills – Mathematics

All elementary, early childhood and K-12 majors (i.e., special education, library science, music, and foreign language) are also required to take:

5. Elementary School – Content Knowledge
- In addition, ALL MAJORS TAKE:
6. Principles of Learning and Teaching (K-6 OR 7-12)
 7. Specialty Area Exam
- Test Registration Booklets, which will provide cost of tests and cut-score information, are available in the Office of Field Services (127 Stevens).
- C. Complete application for certification.
 - D. 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.
 - E. 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.
 - F. Provide verification of a valid health examination (within one year) and negative tuberculin test (within two years) at the date the application is processed.
 - G. Receive recommendation for certification from the Dean, College of Education and Human Services.

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	Inc	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)

Inc (incomplete) is not used 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. It is 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.

Students receiving incomplete grades are subject to academic probation temporarily until the final grade or grades have been submitted to the Office of the Registrar. The probationary action will be removed from the student’s academic record upon receipt of the grades, provided both semester and cumulative QPAs are 2.00 or above.

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 MATH 050 or 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. The option for taking a course for credit-no record is limited to the first five weeks of each semester and the first four days of any five-week Summer Session. Satisfactory work in a credit-no record course shall be shown on the grade report 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.

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; or the Venango Campus.

Undergraduate students must successfully complete a minimum of 128 credits (62 credits for the associate degree) with both a major and cumulative QPA of at least 2.00 except where the requirements of a particular program or college is 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 110 and 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 45 of the last 64 credits required for graduation with a baccalaureate degree must be taken in residence at Clarion University.

Candidates for graduation with an associate degree must complete a minimum of 30 credit hours in residence at the Venango Campus in Oil City, Pennsylvania.

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 also may pursue two baccalaureate degrees concurrently by completing a minimum of 30 credits, excluding physical education activities, beyond the requirements of the first degree and 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.

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.

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 grade-point averages 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.

Honors Program

17 Becht Hall

Clarion University’s Honors Program is a close-knit group of talented students preparing for the future. Honors courses satisfy general educational requirements and include field experiences. The 21-course curriculum promotes development of essential life skills targeted for successful career outcomes. The Honors experience extends beyond the walls of the traditional classroom. Students may spend time with archaeologists in Italy, with anthropologists at a primate center, with large corporate firms and in small businesses, and with molecular biologists in laboratories. Studies have included 20th-century music, learning the art of problem solving, and pondered the ethical implications of research. Co-curricular themes prepare Honors Program students to assume leadership roles. The Honors Program is not for all students—only those individuals who desire professional success, demand academic excellence, and expect to create the future.

Each year 50 freshmen are selected for the Honors Program. Courses are taught as special topics and faculty instructors are recruited for their scholarly expertise. Honors students major in every department within the University and receive preprofessional advisement. 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 class and a three-credit social sciences course. As juniors, students take a Junior Seminar that culminates in a project prospectus for the capstone experience. Honors 450 is the

Senior Presentation delivered in a university-wide presentation. The following program standards must be maintained at the end of each academic year:

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

All course substitutions or changes in academic programs must be approved by the director of the Honors Program. Successful completion of the program is recognized at Commencement and is also noted on the official transcript. Students may participate in exchanges, and study-abroad programs. Most honors students are the recipients of academic scholarships.

Honors Courses

HON/SCT 125: 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 & Theatre. Equivalent of ENG 111 and SCT 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 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 synthesizes knowledge and skills acquired in lower-division courses through a unifying theme. Broad theme offers a variety of dimensions for study and research. This course or study abroad required of students enrolled

Maximum Credit Hour Load

The normal credit-hour load for undergraduate students in good academic standing is 15 to 18 credit hours per semester and six to seven credit hours per five-week summer session. 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 seven credit hours for a five-week summer session 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

Entering freshman may apply for program admission and may be accepted on the basis of academic performance, aptitude, a written statement, and interview. Undergraduate students already enrolled or transfer students may also apply. If a student should fail to maintain the required grade point average and course progression by the end of an academic year, 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.

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 (see page 25). 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

Students shall be permitted to repeat any and all courses as often as they choose; however, once they have graduated from the university, a course cannot be repeated for the purpose of improving one's cumulative undergraduate or graduate quality point average.

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.

Financial Information

Financial Information



Financial Information

General Information

The student is responsible to ensure that all Clarion University charges are paid or covered by financial aid by the beginning of each semester or session. Students with delinquent account balances will be charged a late fee and will not be permitted to register for courses. Academic records (transcripts and diplomas) will be withheld until all charges have been paid in full.

Tuition is normally reviewed and set annually by the State System of Higher Education Board of Governors; however, **tuition is subject to change at any time by the board.** A complete undergraduate tuition schedule is shown below.

All **fees** appearing on the student account are payable whether or not the student plans to use these services. These fees are used to support the operation of the facilities and activities associated with these services and **are subject to change.** A description of all fees is provided in the **Schedule of Charges** section below.

Room and Board charges are normally reviewed and set annually by the Clarion University Council of Trustees; however, **room and board is subject to change at any time by the council.** A complete room and board charge schedule is shown below.

Refunds are granted in accordance with the policy established by the State System of Higher Education Board of Governors and **are subject to change at any time by the board.** To receive a refund, students must officially withdraw through the Registrar's Office. A 100 percent refund will be granted only if a student officially withdraws before or on the first day of classes. After the first day of classes, partial refunds are granted based on the following schedule:

Fall and Spring Semesters

Withdrawal Date	Percentage Refunded
First day of semester and before	100%
First week	90%
Second week	80%
Third week	70%
Fourth week	60%
Fifth week	50%
After the fifth week	No refund

Refunds for summer sessions and fall/spring sessions that start on dates other than the official fall and spring class start dates are determined independently based on the session start date and length.

Billing Statements are mailed to the student's permanent (home) address approximately 30 days prior to the start of the semester. Billing and payment instructions that include updated tuition, fee, room and board charges along with complete billing and payment information for the current semester are mailed with each semester's initial billing statement. At the end of each month, students with unpaid balances are sent a billing statement showing the amount due.

A **Monthly Payment Plan** option is offered to Clarion University students by Tuition Management Systems. Enrollment and payment plan details can be found by visiting www.afford.com on the Internet.

Schedule of Charges

An **Application Fee** is a non-refundable fee of \$30 that must accompany each application for admission.

An **Acceptance Deposit** of \$50 must be paid upon receipt of notice of approval of application for admission. The \$50 fee is non-refundable but is deducted from the student's first semester charges.

Undergraduate Tuition is set by the Board of Governors of the State System of Higher Education and is **subject to change at any time by the board.**

2001-02 Academic Year

PA resident:	
Full-time (12-18 credits)	\$2,008/semester
For each credit over 18 credits	\$167/credit
Part-time (fewer than 12 credits)	\$167/credit
International students:	
Full-time (12-18 credits)	\$5,020/semester
For each credit over 18 credits	\$418/credit
Part-time (fewer than 12 credits)	\$418/credit
Non-PA resident:	
Full-time (12-18 credits)	\$3,012/semester
For each credit over 18 credits	\$251/credit
Part-time (fewer than 12 credits)	\$251/credit

Room and Board Charges for double occupancy of a furnished room is \$1,287 per student per semester. A limited number of single rooms are available at an additional cost of \$535 per semester. The rental agreement for university residence halls is for one academic year.

Students are responsible for damages, breakage, loss, or delayed return of university property. Students are also collectively responsible for damages in common areas of residence halls.

All dormitory residents must participate in one of the following board plans.

	Standard Plans	Flex Plans
Full-Board Plan	\$737/semester	\$902/semester
Fourteen-Meal Plan	N/A	\$877/semester

The following board plans are available to students who do not reside in university residence halls.

	Standard Plans	Flex Plans
Full-Board Plan	\$737/semester	\$902/semester
Fourteen-Meal Plan	N/A	\$877/semester
Ten-Meal Plan	N/A	\$711/semester
Five-Meal Plan	N/A	\$504/semester
\$100 Flex Account	N/A	\$100

The summer room and board charge is determined on the basis of university costs and is estimated per five-week session to be \$680.

Room Deposits of \$75, which is non-refundable, are required to be made by residence hall students to reserve a room for the Fall Semester. The deposit is credited to the Spring Semester room charges.

Semester Fees

An **Instructional Support Fee** in the amount of 10 percent of tuition for PA residents and 6.67 percent of tuition for non-PA residents is assessed each semester to every student. The fee is computed by multiplying the tuition

charge by the proper percentage. The revenue from this fee is used to upgrade instructional equipment, improve library holdings, and for other instructional support purposes.

A **Health Center Fee** in the amount of 3.3 percent of tuition for PA residents and 2.2 percent of tuition for non-PA residents is charged each semester to every Clarion Campus student. The fee covers the cost of operating and maintaining the Keeling Health Center.

A **Student Center Fee** (for Clarion Campus only) in the amount of 6.6 percent of tuition for PA residents and 4.4 percent of tuition for non-PA residents is charged each semester to every Clarion Campus student. The fee covers the cost of operating and maintaining the Gemmell Student Center.

A **Student Support Fee** (for Venango Campus only) in the amount of 3.9 percent of tuition for PA residents and 4.4 percent of tuition for non-PA residents is charged each semester to every Venango Campus student. The fee covers the cost of student support services provided at the Venango Campus.

A **Student Activity Fee** is required to be paid by all students prorated on the following basis:

12 or more credits	\$110/semester (full-time fee)
9-11 credits	\$55/semester (50% of full-time fee)
1-8 credits	\$27.50/semester (25% of full-time fee)

This fee is administered by the Clarion Students' Association, which is a student organization approved by the Council of Trustees. The activity fee covers the cost of athletic, social, musical, theatre, and recreational activities. A **Recreation Center Fee for Clarion Campus only** is charged to all Clarion Campus students on the following basis:

12 or more credits	\$80/semester (full-time rate)
9-11 credits	\$40/semester (50% of full-time rate)
6-8 credits	\$20/semester (25% of full-time rate)
1-5 credits	\$10/semester (12.5% of full-time rate)

The fee covers the cost of operating and maintaining the Student Recreation Center.

Students assigned to an internship, student teaching, or similar program outside a 50-mile radius of the Clarion Campus are exempt from the health center, student center, and recreation center fees and are only required to pay 50 percent of the student activity fee. However, students must notify the Accounts Receivable Office of their exempt status in order to receive appropriate reduction of their fees.

Other Fees and Charges

A **Clinical Appraisal Fee** of \$20 is charged for each clinical appraisal conducted by the Speech and Hearing Clinic.

A **Graduation Fee** of \$15 is charged to each graduating student. The fee covers the cost of commencement and the printing of diplomas.

A **Late Fee** of \$25 is charged to all students who have an unpaid balance at the start of the semester or session.

Students may obtain **Parking Permits** from the Public Safety Department to park their motor vehicles on University property. Venango Campus students must obtain a permit at the Frame Administration Building. **The fee for student parking is set annually.** Permits are valid from

September 1 to August 31 each academic year. New permits are issued at the beginning of each Fall Semester.

A one-time **Transcript Fee** of \$15 is assessed to all students during their first semester. This entitles the student to free transcripts for life.

The cost of **Books and Supplies** depends on the courses in which the student is enrolled. **Books and supplies are not billed on the semester invoice.** Payment for books and supplies must be made to the University Bookstore at the time of purchase.

Rules Governing Residency

Original Classification

A student is classified as a resident or non-resident for tuition purposes at the time of admission to the university. The decision, made by the dean of enrollment management, is based upon information furnished by the student's application and other relevant information. No student, once having registered as an out-of-state student, is eligible for resident classification in the university unless he or she has been a bona fide resident of the state for at least a year immediately prior to registration for the term for which resident status is claimed. This requirement does not prejudice the right of a student admitted as a non-resident to be placed thereafter on resident basis provided he or she has established a bona fide domicile of a year's duration within the state.

Change of Classification

For university purposes, a student does not establish a domicile in Pennsylvania until he or she has been here for at least one year primarily as a permanent resident and not merely as a student. A student is presumed not to be a resident if he or she has resided for a shorter period, but may rebut this presumption by clear and convincing evidence. If the student is enrolled for a full academic program as defined by the university, it will be presumed the student is in Pennsylvania for educational purposes, and the burden will be on the student to prove otherwise. In general, members of the armed forces and their dependents are normally granted in-state tuition rates during the period when they are on active duty within the Commonwealth of Pennsylvania. Members of the armed forces who established a domicile in Pennsylvania immediately preceding entry into government service and who have continuously maintained Pennsylvania as a legal residence will be presumed to have a Pennsylvania domicile.

Subject to the provisions of the preceding paragraph, the domicile of an unmarried minor, or of a student who is claimed as a dependent on the parent's (or legally appointed guardian's) federal income tax return, follows that of the parent or guardian.

Students receiving financial assistance dependent upon domicile in a state other than Pennsylvania are not domiciled in Pennsylvania.

To change residency status, students must fill out a "Residency Classification Data Collection Form" and additionally furnish convincing documentary evidence to

support a claim of Pennsylvania domicile. Factors which will be considered in the determination of residence include but are not limited to: payment of state and federal taxes by student (if claiming financial emancipation) or supporting parent as Pennsylvania resident; the holding of a Pennsylvania driver's license; purchase or lease of a permanent independent residence; marriage to a Pennsylvania resident; automobile and other property registered in Pennsylvania; agreement for, or permanent full-time employment in Pennsylvania; and voter registration.

Residency Classification Data Collection Forms may be obtained from, and the completed document and supporting materials returned to, the vice president for finance and administration in 218 Carrier Administration Building.

Financial Assistance

Kenneth Grugel, M.A., director

104 Egbert Hall

Telephone: 393-2315

E-mail address: kgrugel@clarion.edu

Website: www.clarion.edu/

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. These applications are available from Pennsylvania high schools or directly from the Office of Financial Aid at Clarion University of Pennsylvania.

Grants, Loans, and Employment

Pennsylvania and Federal Grants

PENNSYLVANIA HIGHER EDUCATION ASSISTANCE AGENCY GRANTS—The determination of recipients of these grants is made by the agency. The grants vary in amount and are based on the financial need of Pennsylvania students. Application forms may be secured from the agency, high school guidance counselors, or Clarion University of Pennsylvania. A listing of non-Pennsylvania state grants is available upon request from the Office of Financial Aid.

PELL GRANTS—Federal grants available to undergraduate students for a maximum of five academic years. Recipients are determined by the U.S. Department of Education based on financial need. The FAFSA application form is your PELL grant application form.

SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANTS—Federal grants available to students with financial need as defined by the U.S. Department of Education and awarded by the Office of Financial Aid. These awards are determined on an individual basis by the Office of Financial Aid at Clarion University of Pennsylvania.

Federal Family Education Loan Programs

FEDERAL PERKINS LOAN PROGRAM—This 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.

These loans, which are non-interest bearing while a student is enrolled, are available to a maximum of \$2,000 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% 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 STAFFORD LOAN PROGRAM—Loans to a maximum of \$2,625 per academic year for first-year students, \$3,500 for second-year students, and \$5,500 for third-, fourth-, and fifth-year students to a limit of \$23,000. Graduate students may apply for up to \$8,500 per academic year in subsidized loans. Loan applications are available from local banks and savings and loan associations. 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.

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.

CLARION UNIVERSITY FOUNDATION REVOLVING LOAN FUND—The foundation has established a loan fund, for educational purposes only, which is available to full-time undergraduate students in good standing. Loans may be granted to a maximum of \$200. The loans are interest-free for 60 days. Thereafter, a \$10 late fee is imposed. Application forms may be secured from the Foundation Office.

ALEXANDER HREACHMACK REVOLVING LOAN FUND—EMERGENCY LOAN—Similar in purpose and administration to the Foundation Loan, Hreachmack Loans have a maximum value of \$200, are interest-free for 60 days, and have a \$25 late fee. Loans are due and payable prior to graduation or the end of each semester. Applications are available in the Office of Financial Aid.

Loan Repayment Chart (payback period=10 years)

Amount Borrowed	Approximate Monthly Repayment for:	
	NDSL (5% interest)	GSL (8% interest)
\$ 5,000	\$ 53.03	\$60.67
7,000	74.25	84.93
10,000	106.07	121.33
11,000	116.67	—
12,000	127.28	—
15,000	—	182.00

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 a maximum of 10 hours per week 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. Most student positions are limited to 10 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. Students must be enrolled at least part-time and must reapply for it each year.

Full-time baccalaureate students may receive assistance from most federal Title IV programs for up to six years of attendance or applicable program limits, and state aid programs for each of their undergraduate years, providing that they maintain “normal academic progress.”

This means undergraduate students must successfully complete a minimum of 21 new semester hours by the end of each academic year, including the summer, before they can be awarded grant assistance for their next school year.

Part-time undergraduate students must successfully complete a minimum of 12 semester hours during each academic year, including the summer, to continue receiving any financial assistance.

Graduate students must successfully complete 18 semester hours by the end of each academic year, including the summer, before they can be granted assistance for their next school year.

Part-time graduate students must successfully complete nine semester hours during each academic year, including the summer, to continue receiving any financial aid. They must also earn the number of credits they attempt each semester. For example, if a graduate student registers for nine credits, the student must complete those nine credits in order to make satisfactory academic progress.

Once a student earns 64 semester hours, including transfer hours, the student must maintain a 2.0 cumulative QPA to continue receiving Title IV funds in addition to earning 21 new semester hours.

PHEAA grant recipients must complete 24 new semester hours each year to have their grants renewed during the following year.

Stafford Loan recipients become a level 02 student once 32 new semester hours are earned; level 03 after 64 hours; and level 04 after 96 hours.

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 of Pennsylvania, 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.

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

Those 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 is fees is different from the Federal Title IV regulations.

Scholarships – General University

The following information illustrates the many scholarship opportunities available to students at Clarion University. Throughout the past year, endowed scholarships, annual scholarships, and athletic scholarships provided support to more than 675 students.

The majority of Clarion's scholarships are funded by way of private support through the Clarion University Foundation and are managed by the office of scholarship administration, within the enrollment management area of the University.

Art, Music, Athletics

Clarence and Janet Lesser Scholarships: Provides 25 to 30 awards varying in amount from \$300 to \$500. Awards may be renewed subject to the availability of funds at the discretion of the selection committee. Talented candidates, both men and women, will receive preferential consideration for awards to be made in the areas of art, music, and intercollegiate athletics. High school students who have exhibited high interest and achievement are urged to apply. Criteria for selection are talent, academic promise, and leadership potential. Application should be made in the spring. The awards are paid each semester as a tuition credit. Contact the director of financial aid for additional information.

Arts and Sciences

Fred L. and June McCall Burns & Family Scholarship: Established by Dr. Max H. Burns in honor of his parents, Fred and June McCall Burns. Candidates must be seeking a degree in music, drama or mathematics, or in the education fields of music, drama or mathematics. Contact the foundation office for additional information.

Nancy Shaw McKee Scholarship: Provides one annual scholarship to an undergraduate student (of junior standing or higher) majoring in any area of the arts and sciences. The recipient will be selected on the basis of academic performance and financial need. Contact the dean of the College of Art and Sciences at 814-393-2225 for more information.

Athletics

Unless otherwise indicated in the description, information on Athletic scholarships can be obtained by contacting the Athletic Director's office at 814-393-1997.

Alpha Gamma Phi Scholarship: This scholarship was established in 2001 by the brothers of Alpha Gamma Phi fraternity. It is awarded to an incoming freshman student-athlete. Recipient must have a minimum SAT score of 900, be ranked in the upper 2/5 of

his/her graduating class, have financial need, and meet the eligibility requirements of the NCAA.

Dr. Helen M. Barton Women's Basketball Endowment: This scholarship was established by Mary L. Seifert ('46) in memory of former physical education teacher Helen Barton. It is awarded to a freshman female student athlete with first preference to a female basketball player. The student must also meet the eligibility requirements of the NCAA.

Burns and Burns Golf Scholarship: Established to provide support to outstanding student-athletes participating in the golf program.

George B. Garbarino Athletic Scholarship: An endowed scholarship created via proceeds from the university's annual Wild Game dinner along with gifts from friends of Mr. Garbarino. This scholarship fund at Clarion is administered by the athletic director. Awards are available to both men and women who compete on intercollegiate teams at Clarion. Interested students should have their high school coach contact the respective coach at Clarion for additional information.

Ernest W. Johnson Memorial Baseball Scholarship: Available to a member of the Clarion University baseball team who is a resident of Pennsylvania. In addition, the recipient must have completed at least three academic semesters, be in good academic standing, and be eligible for participation in NCAA events the following year.

Joe Kata '32 Memorial Scholarship: Established by Verna Kata ('32) in memory of her husband Joe who was a former three-sport athlete and local high school football coach, as well as a guidance counselor and superintendent. This award will be given to a male or female freshman student athlete who meets eligibility requirements set by the NCAA.

Joseph J. Knowles Memorial Scholarship: Established to financially assist men and women student athletes. Awards to both men and women are presented each year.

James A. "Abby" Mays Scholarship: Established by Carolyn Mays Axtell in memory of her father, a leader in the development of Clarion County. The award assists student-athletes enrolled in the College of Business Administration who meet eligibility requirements for either football or men's basketball.

Dave Mercinko Memorial Scholarship: Established by Michael ('79) and Courtney Baker in memory of Dave Mercinko, a former Clarion University football player. This scholarship provides financial support to a freshman student-athlete, as well as serves to advocate that all students should be educated on the perils of alcohol and drug abuse. Applicants must have an SAT score of 900 or above, graduated in the upper 2/5 of their high school class and financial need.

Potter/McClune Scholarship: Established by Clifford R. McClune and his wife Maralouise, in honor of his parents, Blanche Irene Potter and Russell R. McClune; and grandparents. The scholarship was created to support student athletes from Clarion County high schools (preference to students from Clarion Area or Clarion-Limestone) who demonstrate financial need. If no Clarion Area or Clarion-Limestone students meet the criteria, the award may be extended to graduates of other Clarion County high schools. Recipients are eligible to receive the award in subsequent years, provided they remain in good academic standing (3.0 or higher). For additional information, interested students should have their high school coach contact the respective coach at Clarion University Athletics.

Fran Shope Scholarship: Awarded to a junior or senior woman who has made outstanding contributions to Clarion University Athletics.

W. S. Tippin Scholarships: This athletic scholarship fund at Clarion is administered by the athletic director. Scholarships are available to both men and women who compete on intercollegiate teams at Clarion. Interested students should have their high school coach contact the respective coach at Clarion for additional information.

Weir Family Scholarship: Established by Chuck ('56), a former Clarion University athlete, and Shirley Weir, in honor of the Weir family which includes many children and grandchildren, some

of who have graduated from Clarion University. This scholarship will be awarded to a freshman student-athlete who meets the eligibility criteria set by the NCAA.

George W. Williams/Robert Bubb Wrestling Scholarship: Established by Nancy Williams in memory of her husband, the voice of Clarion wrestling for many years. The award is made annually to a member of the university's wrestling team or a graduate student associated with the program. The recipient will be selected based upon the following requirements: academic proficiency, wrestling performance, character, moral standards, and eligibility under NCAA rules. For additional information, contact the Wrestling Office at 814-393-2596.

Dr. George F. and Twila M. Wollaston Scholarship: Funded by the Wollastons (George '57 and Twila M. '58) as a means of attracting outstanding young men and women in academics and athletics to Clarion. Two freshman scholarships are awarded each year, one to a member of the men's baseball team and one to a member of the women's basketball team.

International Programs

For information on the following International Programs Scholarships contact the Office of International Programs at 814-393-2340.

International Student Award for Outstanding Achievement: Presented annually to the outstanding foreign student of the year based on services and activities performed for the university, the Clarion International Association, civic and professional groups, and other activities of academic and/or cultural enrichment. Students receiving this award are selected by a faculty committee.

The Panos and Pavlos Award: Established by Mr. Panos Theodoridis '90 and Pavlos Ignatiades '86, '88 for international students originating from Greece or Cyprus.

Theatre

Theatre Scholarships: Available to students who participate in Clarion University Theatre. Criteria for selection are aptitude, dependability, dedication to theatre, talent, and performance promise. Students are selected by the theatre staff. The number and the amount may vary from year to year. For additional information, contact the director of theatre.

University Wide

Sara Ciccirelli Scholarship: Established by the estate of Sara (Milanovich) Ciccirelli ('32) who taught English for 25 years in the Union School District. First preference for this scholarship will be a graduate of the Union (Rimersburg) School District. If no candidates meet that criteria, students from other Clarion County schools will be given secondary consideration. Student records are reviewed for this scholarship upon receipt of their admission materials; no scholarship application is required.

Clarion University Alumni Association Scholarships: Through the foundation, several tuition credit awards are made annually by the Alumni Association. Eligible candidates should have completed at least 16 credits at Clarion. Two scholarships are awarded to children of university graduates; however, any student may apply for the other eight scholarships. Recipients are selected by a committee of the Alumni Association. Contact the director of alumni relations at 814-393-2637.

Mary/Martha Colegrove Educational Fund Scholarships: The Clarion University Foundation offers the Colegrove Educational Fund scholarship. Awards are made to women from McKean County. The recipients can continue to receive the awards during subsequent years, providing academic requirements are met. Students' records

are reviewed for this award via their admission materials; no scholarship application is required.

Commodore Corporation/Richard Boyle Scholarship: Established by the Commodore Corporation in memory of former manager Richard Boyle. The scholarship provides support for dependent children of employees of the Commodore Corporation and Colony Factory Crafted Homes manufacturing plants in Clarion County. Selection is based upon demonstrated financial need, a written statement of application, and letters of recommendation. Application information can be obtained at Commodore at 814-226-9210; Colony at 814-226-9590; Clarion University Foundation at 814-393-2572; or the Financial Aid Office at 814-393-2315.

Minnie D. Croyle Scholarships: Established by the estate of Miss Mary Croyle to provide scholarships for eligible undergraduate students residing in eastern Redbank Township, Clarion County, PA. Students from western Redbank Township will be considered secondarily. Selection is based upon financial need and academic achievement. Scholarships are renewable for sophomore, junior, and senior years if the required academic criteria are met. Contact the foundation office at 814-393-2572 or the Redbank Valley High School Guidance Office at 814-275-2421.

The Derrick Scholarship: Established by *The Derrick* Publishing Company in order to encourage an interest in journalism and reward a promising Clarion University student. The scholarship is available to a sophomore, junior, or senior enrolled in the College of Arts and Sciences. An interest in journalism will be taken into consideration when awarding this scholarship. Preference will be given to students who have been carriers of *The Derrick*. It is possible the scholarship may be renewed in subsequent years. Contact the dean of the College of Arts and Sciences at 814-393-2225.

Donna Dupont Bishop Presidential Scholarship: Established by J. Donald Bishop in honor of his late wife, Donna Dupont Bishop '72. Award criteria are consistent with the Presidential Scholarships as described below.

Eberly Family Scholarships: Created by the Eberly Family Trust to provide scholarships for students residing in Fayette County. Award selection is based upon academic achievement and financial need. No application is required, as student records are reviewed via their admission materials.

Educational Opportunities Program/ACT 101 Scholarship: Three scholarships awarded each spring. Any freshman, sophomore, or junior who demonstrates academic achievement, leadership qualities, and commitment to the Educational Opportunities Program/ACT 101 may apply. Candidates must have a minimum overall QPA of 3.0. Contact the director of Educational Opportunities/ACT 101 Program at 814-393-2321.

Edith Davis Eve Scholarships: The Fund for the Advancement of the State System of Higher Education provides one-time scholarships to incoming students from Blair County. Scholarships are made available to State System universities each year on a rotating basis as determined by the Office of the Chancellor. These awards are based upon academic achievement and financial need. Student records are reviewed for this award via their admission materials; no scholarship application is required.

Foundation Honors Scholarships: Academically talented students at Clarion who participate in the Honors Program are eligible for multi-year Honors Scholarships. Students are selected on the basis of academic achievement and evidence of leadership and motivation. The scholarships are renewable, provided that students maintain the academic standards required by the program. Contact the director of the Honors Program at 814-393-2585.

Foundation Leadership Scholarships: Available to freshmen on a one-time basis. To be considered, applicants must have a minimum SAT score of 1,100 and be in the upper two-fifths of his or her high school graduating class. Amounts vary, but are usually \$1,500. Student records are reviewed for this scholarship upon

receipt of their admission materials; no scholarship application is required.

Foundation Non-Instructional Staff Scholarship: Annually, the foundation makes available six \$500 scholarships to be awarded to university staff members and their dependents. Contact the foundation office for additional information.

Lois Borland Fulmer Endowed Scholarship: Established by the family and friends of Mrs. Fulmer to honor her dedication to teaching. Awards made to an entering or continuing adult student (full-time or part-time) of any major. Contact the Financial Aid Office at 814-393-2315.

Inez and B.H. Fulton Memorial Leadership Scholarship: Established by Ralph ('31) and Virginia Fulton in memory of Ralph's parents. Award criteria are consistent with the Foundation Leadership Scholarship as described above.

Helen Gendler Memorial Scholarship: Established by Dr. and Mrs. Stephen Gendler in memory of Helen Gendler. Funds will provide an annual scholarship to a student with a disability who is registered with Special Services. Selection is based upon academic achievement, service to the university or community, and financial need. Contact the Admissions Office at 814-393-2306 or Student Support Services at 814-393-2347.

Mary R. Hardwick Scholarship: Created to honor Dr. Mary R. Hardwick, retired speech, communication, and theatre professor, and her career as a gifted artist and dedicated educator. Scholarships are available to incoming freshmen or transfer students. Selection is based upon a required essay, financial need, overall academic standing, and if necessary, a personal interview. Contact Deborah Burghardt, director of the Women's Studies Program, at 814-393-2720.

Walter L. Hart Scholarships: These multi-year scholarships, presented in honor of the former admissions director, are presented to incoming freshmen. Consideration is given to students in the top 10% of their graduating class, with SAT scores in excess of 1,200, and with outstanding accomplishments and significant contributions through involvement in extracurricular activities. Students must meet required academic standards to receive the award in subsequent years. Student records are reviewed for this award via admission materials; no scholarship application is required.

Ruth A. Hill Scholarships: These scholarships were established to aid African American students. They are based on financial need and scholastic excellence. Contact the office of enrollment management at 814-393-2306.

James A. Hughes Memorial Scholarship: Established with the Fund for the Advancement of the State System of Higher Education to honor Hughes, a founding member of the Board of Governors.

The purpose of the scholarship is to provide recognition and financial assistance to first year students at State System institutions who reside in Philadelphia and have attended certain Philadelphia High Schools. Nominees will be selected via admissions and financial aid and are requested to submit a letter of recommendation.

Interhall Award: Available to residence hall students who have contributed positively to the residence hall environment. Contact the advisor to Interhall Council at 814-393-2278.

M.M. and Minnie H. Kaufman Leadership Scholarships: Established by Virginia Kaufman ('37) in honor of her parents. Award criteria are consistent with the Foundation Leadership Scholarships as described above.

Clara Louise Kiser Memorial Fund Scholarship: Scholarships, not limited in number or amount, for students graduating from the Clarion Area School District. The scholarships are awarded according to financial need to students planning to attend vocational school or college. Instructions for completing the application process may be obtained from Stephen Kosak, Box 374, Oil City, PA 16301. Deadline for application submission is April 15.

John F. Kuhn Memorial Scholarship: Established by family and friends of the late Dr. Kuhn, provost of Clarion University. Scholarships will be awarded to students who demonstrate academic achievement, high school and community involvement, and avid interests or hobbies. Selection via admissions materials, with recruiting counselors consulting with the foundation.

Sonja and Chuck Leach Leadership Scholarship: Established by Mr. & Mrs. Leach to help students to pursue their life goals. Requirements are the same as outlined for Foundation Leadership Scholarships above.

Margaret and Irvin Leshner Foundation Scholarships: Scholarships, not limited in number and not specified in amount, granted only to graduates of Union Joint High School. Eligible students may receive the award for up to four years, provided they maintain a QPA of 2.5 or above. Recipients selected on the basis of financial need and academic record. Instructions for complete application process may be obtained from Stephen Kosak, Box 374, Oil City, PA 16301. Deadline for submission of application is April 15.

Clarence and Janet Lesser Scholarships: Provides scholarships to successful students in the areas of art, music, and athletics. High school students who have exhibited high interest and achievement in these areas are urged to apply. Application is made each spring prior to April 15. Selection based upon talent, academic promise, and leadership potential. Awards may be continued in subsequent years at the discretion of the selection committee, subject to the availability of funds. Contact the Financial Aid Office at 814-393-2315.

Dean James D. Moore Scholarship: Scholarships in memory of Moore, dean of academic affairs at Clarion from 1943 to 1972, are available to members of the university's Student Senate. Candidates are evaluated on the basis of academic achievement by a committee of the student affairs division. Contact the office of student and university affairs at 814-393-2351.

Dr. Donald A. Nair Phi Eta Sigma National Honor Society Scholarship (Freshmen): The Clarion University chapter of Phi Eta Sigma, a member of the Association of College Honor Societies, offers one cash award each year. The candidate must be a member of the Honor Society, which requires a minimum 3.5 QPA after one or two semesters. Selection is based on academic record and participation in extracurricular activities. Contact Dr. Donald A. Nair, Phi Eta Sigma faculty advisor.

New Castle Wolves Club Scholarship: Established by the National Association of Wolves-New Castle Club to provide assistance to Clarion students from Lawrence County. Candidates must be full-time students and must have graduated in the upper two-fifths of their high school class. Students are eligible to receive the award in subsequent years providing they remain in good academic standing. Candidates will be considered via their admission materials.

Mochnick Honors Scholarship: Created by the Estate of John Mochnick to provide scholarships for academically talented students based upon demonstrated academic achievement, leadership, and demonstrated accomplishments. Candidates must have a minimum overall grade point average of 3.0 and SAT's above 1,200 or equivalent ACT scores. For additional information contact the director of the Honors Program at 814-393-2585.

John Mochnick/Penn-Trafford Leadership Scholarship: Established for high-achieving students entering Clarion University from Penn-Trafford High School. Requirements are the same as outlined for Foundation Leadership Scholarships above.

Dr. and Mrs. Arthur William Phillips Scholarships: Made possible by a donation from the Phillips Charitable Trust of Oil City. Eligible students must have attended high school or have been a permanent resident for the last five years in Butler, Clarion, Forest, Mercer, or Venango counties. Selection based upon positive academic records, promise of academic success, and good moral

character. Financial need shall be considered secondarily. Contact the foundation office at 814-393-2572 or the Financial Aid Office at 814-393-2315. Application deadline is April 15.

Presidential Scholarships: \$1,000 awards are made annually to incoming freshmen and/or transfer students. Special emphasis is placed on outstanding academic achievement (SAT above 1,250; top two-fifths), demonstrated leadership qualities, and involvement in extracurricular activities. Scholarships are renewed annually, provided that students maintain the necessary academic requirements. Student records are reviewed for this scholarship upon receipt of their admission materials; no scholarship application is required.

Richard Redick Memorial Scholarship: Established in memory of Clarion student Richard A. Redick. Awards available to full-time students active in the Returning Adult and Commuting Students organization. Selection criteria include financial need, academic performance, and community service. Contact the RACS organization advisor at 814-393-2272.

Lyle G. Reinhard Scholarship: Established by President Diane Reinhard in memory of her father. Award criteria consistent with the Foundation Leadership Scholarships as described above. One award is for any major and one is designated for Nursing.

Cecil and Agnes Rhodes Memorial Scholarship: Established by Reverend Clayton Rhoades ('53) in memory of his parents, Cecil and Agnes Rhodes. Candidate must be an entering freshman who is a graduate of Union High School (Clarion County), have a minimum SAT score of 900, and have graduated in the upper two-fifths of his/her high school class. Student records are reviewed for this award via their admission materials.

Rotary Club of Clarion Scholarship: Established by Rotary Club of Clarion to assist deserving students from the Clarion area. Candidates must be a current resident of Clarion County and a graduate of Clarion Area, Clarion-Limestone, Keystone, North Clarion, or Redbank Valley schools and must be in the top 20 percent of their graduating class. Also must have maintained a QPA of 3.0 on a 4.0 scale for grades 10, 11 & 12 and must have a minimum combined verbal/mathematics score of 1,150 on SAT or a composite score of a minimum of 26 on ACT exam. Qualified applicants will be selected by the office of enrollment management upon review of their application and should include a letter of recommendation or endorsement from a teacher or administrator of their high school.

Frank H. Sessions Scholarship: Established to honor Dr. Frank H. Sessions, former dean of graduate studies and continuing education. Funds awarded each year in recruiting learning disabled or handicapped students. Contact the Admissions Office at 814-393-2306 or Student Support Services at 814-393-2347.

Christopher John Stahlman Memorial Scholarships: Two C.J. Stahlman Memorial Scholarships are awarded annually to Clarion County students in recognition of outstanding academic achievement, integrity, and service. Requirements include SAT scores in excess of 950 and a minimum 3.3 grade-point average. One award is exclusively for students from Clarion-Limestone High School. This award can be renewed in the sophomore, junior, and senior years, provided the student maintains the required academic criteria. The second award, available to students from any Clarion County high school, is renewable for the sophomore year. Application is required, along with an essay and possible interview. Application information can be obtained from Clarion County high school guidance offices or Clarion University Admissions 814-393-2306. Application deadline is April 1.

State Board of Governors Scholarships: Awards are made each semester to minority students. Candidates must possess a minimum 2.5 QPA. Selection criteria include academic record, contribution to the university, and participation in extracurricular activities. Scholarships are renewable. Contact the Admissions Office at 814-393-2306.

Minnie Patton Stayman Scholarship: The Fund for the Advancement of the State System of Higher Education provides one-time scholarships to incoming students from Altoona, PA. Scholarships are made available to State System universities each year on a rotating basis as determined by the Office of the Chancellor. Awards based upon financial need. Student records are reviewed for this award via their admission materials; no scholarship application is required.

Dana S. Still Scholarships: Several one-time scholarships, awarded in honor of the former professor of English, provost, interim president, and chair of the Council of Trustees, are presented annually to incoming freshman students. Eligibility is based upon financial need. Student records are reviewed for this scholarship upon receipt of their admission materials; no scholarship application is required.

Marjorie Tippin Founders Leadership Scholarships: Available to freshmen on a one-time basis. To be considered, applicants must have a minimum SAT score of 1,100 and be in the upper two-fifths of their school graduating class. Amounts vary, but are usually \$1,500. Student records are reviewed for this scholarship upon receipt of their admission materials; no scholarship application is required.

Marjorie Tippin Founders Presidential Scholarships: \$1,000 awards are made annually to incoming freshmen and/or transfer students. Special emphasis is placed on outstanding academic achievement (SAT above 1,250; top two-fifths), demonstrated leadership qualities, and involvement in extracurricular activities. Scholarships are renewed annually, provided that students maintain the necessary academic requirements. Student records are reviewed for this scholarship upon receipt of their admission materials; no scholarship application is required.

Trout Unlimited Conservation Scholarship: Established with the foundation through the sponsorship of the Iron Furnace, the Oil Creek, and the Allegheny Mountain Chapters of Trout Unlimited. It provides a \$1,000 annual award to support the education of a senior student who displays a keen interest in conservation of natural aquatic resources, especially cold-water. The award will be based first on a written statement of the student's conservation goals and second their academic record. Contact Dr. Terry Morrow, Department of Biology, at 814-393-2273.

Verizon Leadership Scholarship: Established by Verizon through the State System of Higher Education to each of the 14 SSHE universities. The scholarship is a one-time award to a freshman of high academic merit who qualifies for financial assistance. Student records are reviewed for this scholarship upon receipt of their admission materials; no scholarship application is required.

Anna and Walter Weaver Leadership Scholarship: Established by Paul and Mary Weaver to honor Paul's parents. Award criteria are consistent with Foundation Leadership Scholarship as described above. Preferences will be given to students from Clarion County.

Frank and Clara Williams Scholarship: Scholarships, not limited in number and not specified in amount, are granted to Venango County residents. Eligible students must be full-time freshmen or sophomores. Selection is made based upon financial need and academic record. Instructions for completing the application process may be obtained from Stephen Kosak, Box 374, Oil City, PA 16301. Deadline for submission of application is April 15.

Wein Scholarship: Awarded on the basis of academic achievement to graduating seniors of Clarion Area High School. Further information as well as instructions for completing the application process may be obtained from Stephen Kosak, Box 374, Oil City, PA 16301.

Departmental Scholarships

College of Arts and Sciences

Anthropology, Geography, and Earth Science

Tracy V. Buckwalter Memorial: Established in memory of former faculty member Dr. Tracy V. Buckwalter. Presented annually to a senior student who best displays a vital interest and outstanding scholarship in the field of geology. Contact Dr. John Ernissee, Department of Anthropology, Geography, and Earth Science at 814-393-2317.

Biology

Unless otherwise indicated in the description information on Biology scholarships can be obtained by contacting the department at 814-393-2273.

Biology Department Fund Scholarships: One to two scholarships is/are awarded to any student in their junior year enrolled in any of the biology degree programs including medical technology. The Scholarship Committee makes a recommendation to the department based upon academic record, contribution to the department and/or university, and participation in extracurricular activities.

Outstanding Biology Scholars Award: Awarded annually to an incoming freshman biology, secondary-education biology, molecular biology, environmental biology or medical technology major. Award is based on academic achievement, requiring SAT scores higher than 1,200, and class rank in the top 20 percent. The award is continued each year if specific academic requirements are met.

Kim Rutherford Memorial Scholarship: A partial tuition credit scholarship in memory of a former faculty member is awarded each year to a major in any of the biology degree programs, except medical technology, with freshman or sophomore standing. Recipient is selected upon the following criteria: academic excellence, participation in extracurricular activities, service to the Biology Department and Clarion University, financial need, and the student's goals in biology. Final selection is made by the department upon recommendation of the department's academic committee.

Trout Unlimited Conservation Scholarship: Established with the foundation through the sponsorship of the Iron Furnace, the Oil Creek and the Allegheny Mountain Chapters of Trout Unlimited. It provides a \$1,000 annual award to support the education of a senior student who displays a keen interest in conservation of natural aquatic resources, especially cold-water. The award will be based first on a written statement of the student's conservation goals and second their academic record. Contact Dr. Terry Morrow, Department of Biology, at 814-393-2273.

Chemistry

Clarion University Department of Chemistry Scholarships: These scholarships are awarded to a chemistry major and are based upon scholarship in chemistry. Contact the Chemistry Department chair at 814-393-2281.

Clarion University Department of Chemistry Commemorative Scholarship: This scholarship is awarded to a chemistry major and based upon scholarship in chemistry. Contact the Chemistry Department chair at 814-393-2281.

Heagy Memorial Scholarship: This scholarship is made possible by a generous contribution from family of former chemistry student, John Heagy. Eligible recipients must have a sophomore standing and the award is based upon academic performance, attitude and interest in chemistry. Contact the Chemistry Department chair at 814-393-2281.

Communication

Unless otherwise indicated in the description information on communication scholarships can be obtained by contacting the department office at 814-393-2245.

James J. Canelos Scholarship: Annually, a scholarship in memory of alumnus Canelos is offered to a junior communication major. Eligibility requires a minimum 3.4 QPA. Final selection is made by department members on the basis of academic record, contribution to the Communication Department and the university, participation in extracurricular activities, and financial need.

James H. Cole Scholarship: Annually, a scholarship in honor of James D. Cole, the former dean of the School of Communication, is directed toward second semester undergraduates majoring in communication with no fewer than 15 credits and no more than 32 credits. Final selection is made by department members on the basis of academic achievement, involvement in the Communication Department and community service.

Communication Department Foundation Scholarships: This scholarship is awarded annually by department members on the basis of academic achievement, involvement in the Communication Department and community service.

Computer Information Science

Elizabeth Ross Association of Information Technology Professionals Scholarship: Annual scholarships are awarded to AITP members majoring in Computer Information Science (CIS). Selection is based on academic record and contribution to AITP. Contact the CIS Department at 814-393-2442.

George R. Lewis Scholarships: These scholarships are made available to deserving students in computer science. The scholarship is renewable through four years, provided students meet the required academic standards. Contact the CIS department at 814-393-2442.

English

Joseph F. and Susannah Centorcelli Scholarship: Established through the Clarion University Foundation by Mr. Centorcelli in memory of his wife. One recipient selected annually. Applicants must be an English major of at least sophomore standing, have a 2.5 QPA and be residents of Clarion, Jefferson, or Venango counties. Candidates must submit a narrative in which they discuss academic interests and future goals. Also they are urged to submit samples of critical or creative writing. Contact the English Department chair at 814-393-2482.

Gilbert Neiman Scholarships: Established in memory of Dr. Neiman, former professor of English at Clarion University. Three scholarships are made each year, one each to a junior, sophomore, and freshmen who major in English, liberal arts, or secondary education English. Freshman applicants must submit a creative writing or critical essay, recommendation from a senior English teacher, and a high school transcript. Application should be made after the student has been accepted at Clarion with the English Department at 814-393-2482.

History

History Department Foundation Scholarship: Eligible students must be of sophomore or junior standing as award is a tuition credit during the following semester. Criteria for selection include academic excellence and service to the respective department. Contact the chair of the History department at 814-393-2546.

Mathematics

Calculus Scholarship: For a declared mathematics major who achieves the highest score on a standardized calculus test. Students must be recommended by faculty members to take the test. Available annually through the Mathematics Department Endowment Fund. Contact the chair of the Mathematics Department at 814-393-2592.

Tom A. Carnahan and Mel A. Mitchell Secondary Education/Mathematics Scholarship: Established to benefit Clarion students enrolled in the secondary education/mathematics degree program. The award will be made to full-time students who have been admitted to the Teacher's Certification Program and who have achieved a minimum 3.0 QPA in completed mathematics courses. The Office of the Dean of Education will be responsible for mailing applications

to all eligible students. In addition to submitting an application, students are required to provide two letters of recommendation. Students are eligible to apply for the scholarships for a second year.

Marlin & Cleva Hartman Scholarship: This scholarship was established by Marlin ('59) & Cleva (Haight) Hartman ('59) to aid children of United States veterans. Preference is given to an incoming freshman who is the son or daughter of a United States veteran, has declared a Math, Math/Education or Elementary Education major, and has financial need as shown by a submitted FAFSA form. Student records are reviewed for this scholarship upon receipt of their admission materials; no scholarship application is required.

John F. Kuhn Mathematics Scholarship: Established by Dr. & Mrs. Stephen Gendler, with the support of the entire Mathematics Department, to honor the memory of Provost Kuhn by providing scholarships to attract students from under-represented classes to study mathematics at Clarion University. Candidates must have applied for admission to Clarion University with the intent to be a full-time undergraduate student. They must be a member of an under-represented class and planning to major in mathematics or mathematics education. QPA, class rank, SAT or ACT scores, and recommendations from mathematics teachers will be measured by the admission file.

Mathematics Freshman Scholarship: For an incoming freshman mathematics major. The recipient must be one of the top 10 scorers on the department's annual High School Mathematics Competition. The award is made during the fall of the student's freshman year. It is funded through the department's endowment fund. Contact the Mathematics Department at 814-393-2592.

Helen and Lawrence Smith Scholarships: These scholarships are made possible by an endowment established by Mrs. Helen Smith in memory of her husband. Applicants must be full-time students at the junior or senior level majoring in library science or mathematics, must have completed at least 64 credits, and have a QPA of 3.0 or higher. The scholarships are available for a second year, provided students maintain the academic standards required. Contact the Math Department at 814-393-2592.

Modern Languages

Unless otherwise indicated in the description information on Modern Language scholarships can be obtained by contacting the department chair at 814-393-2494.

Rafael Diaz y Diaz Scholarship: Presented annually to the most outstanding junior or senior who is majoring in Spanish and plans to study either in Spain and/or an Hispanic country. Based on academic excellence and contribution to the Spanish section of the Modern Languages Department. Selection made by the Spanish Scholarship Committee.

Irmgard Hegewald Scholarship Fund: Established through a gift from the estate of her mother, Gertrude Schulz, to honor the former German faculty member. The purpose of the fund is to provide scholarships for students studying German. Contact Eleanor ter Horst at 814-393-2494.

Judith McCrary Scholarship: These monetary awards are given to one French major, one Spanish major and one German minor each year based on quality of academic work.

Music

Unless otherwise indicated in the description, information on Music scholarships can be obtained by contacting the Music Department chair at 814-393-2287.

Dr. John A. Mooney Scholarship: Presented to a music major of at least sophomore standing. Criteria for selection are based primarily upon musical talent and secondarily upon financial need. Candidates will be required to demonstrate musical talent via live audition. This endowed scholarship will be applied to the recipient's educational fees.

National Association of Music Merchants (NAMM) Scholarship: Sponsored by the National Association of Music Merchants. Awarded annually to an outstanding Bachelor of Music student with elective studies in a business major based on musical and scholastic achievement.

Presser Scholarship: Sponsored by the Presser Foundation of Bryn Mawr, PA. Awarded annually to the outstanding senior music major. The recipient is selected through music faculty nominations.

Mary L. Seifert Music Scholarship: Established by Clarion alumna Mary L. Seifert. Its purpose is to annually reward academic achievement; department and university service; and the musical contributions of a junior or senior major.

Sabina Mooney Seifert Scholarship: Established in honor of Mrs. Seifert ('09) by her daughter, Mary L. Seifert. It is available as a one-year award for freshman music majors. The award criteria is based primarily upon academic achievement. The student must have a minimum 3.0 QPA (on a 4.0 scale) and must rank in top one-fifth of his or her Western Pennsylvania high school graduating class.

Linda Marie Trunzo Memorial Scholarship: Designated for incoming freshman music majors. Presented in memory of Trunzo, a Clarion student. Recipients selected by a scholarship committee on the basis of academic achievement and an interview/audition to demonstrate talent in music. Recipients are named "Trunzo Scholars."

Physics

Paul Shank Award for Excellence in Physics: Two awards are made annually in honor of Dr. Shank, a former physics professor. The scholarships are awarded based on grades in physics, mathematics, and computer science and are presented to junior physics majors. In addition, recipients' names are inscribed on a plaque in the department office. Contact the Physics Department chair at 814-393-2571.

Physics – Pre-engineering

Mary Jane Collins Meenan Scholarship: This scholarship is awarded annually to a deserving student in the Cooperative Engineering Program at Clarion University. Student must have an overall 3.0 QPA, carry a "B" average in mathematics, physics, chemistry and computer science courses, provide a recommendation from a science or mathematics instructor, have financial need and show active service to the university and/or community. Contact the office of admissions.

Psychology

Eric S. Knotick Memorial Scholarship: This endowed scholarship in memory of Mr. Knotick, a Clarion student, is given annually to a psychology major. The award is based on academic accomplishment and service to the university, Psychology Department, and community. Contact the Psychology Department chair at 814-393-2295 for additional information.

Dr. Iseli K. Krauss Psychology Scholarship: Established by Dr. Krauss, a member of Clarion's Psychology department since 1988. The scholarship will be awarded to a sophomore who has a minimum SAT score of 1,050 and 3.2 QPA. The award will be paid during the student's junior year and can be renewed for the senior year. Contact the chair of the Psychology Department.

Psychology Department Endowed Scholarship: Established by members of the Psychology Department to foster and reward academic excellence. One to two awards are given each year to students with at least 64 hours by the end of the Spring semester, with the award given the following year. The successful applicant will have earned at least an overall QPA of 3.0 and have completed 15 hours in Psychology, at least 9 of which must have been earned at Clarion University. Research, departmental service, and other contributions to the field are strongly considered. Contact the chair of the Psychology Department at 814-393-2295 for additional information.

Social Studies

John Francis Salvucci Scholarship: This scholarship was established by Mr. & Mrs. Gene Salvucci in memory of their son, John, who graduated from Clarion with a History degree in 1981. Incoming freshman who are enrolled in the Secondary Education/Social Studies program will be given first consideration with second preference given to an incoming freshman who has declared a History major. To be considered, applicants must have a minimum SAT score of 1,100 and be in the upper two-fifths of his or her high school graduating class. Amounts vary, but are usually \$1,500. Student records are reviewed for this scholarship upon receipt of their admission materials; no scholarship application is required.

Speech Communication and Theatre

Cheri Aharrah Reid Memorial Scholarship: Established by Dr. Ernest ('49) and Mrs. Peggy (Berringer '49) Aharrah in memory of their daughter. Its purpose is to assist freshman students in the Department of Speech Communication and Theatre. Recipient selected on the basis of demonstrated high school and/or community activities deemed worthy of merit. Contact the chair of the Department of Speech Communication and Theatre at 814-393-2284.

Mathematics, Physics, Chemistry, Geography, Earth Science, Biology

William and Elizabeth Hart Scholarship: Established to honor former chemistry professor Dr. William Hart. Two scholarships are awarded and can be used to pay for tuition, room, board, and some miscellaneous fees, including books. Applicants must major in mathematics, physics, chemistry, geography/earth science, or biology and have completed 45 credits. They must have a QPA of 3.0 overall and 3.3 in mathematics and science course work. Selection shall be made by competitive examination, testing the student's ability in mathematics and English. Application deadline is late February. Contact Scholarship Committee chair Dr. Ben Freed, at 814-393-2592.

College of Business Administration

Unless otherwise indicated, information on scholarships in this section can be obtained by contacting the College of Business Administration at 814-393-2600.

E. Wilson Amsler Endowed Scholarship: Established in recognition of E. Wilson Amsler and his many contributions to the community and the university. The scholarship will permit the College of Business Administration to recruit and/or support an outstanding business major. Applicants must be junior full-time students in the College of Business; have a minimum QPA of 3.5; have completed 30 credits hours; and show active involvement in student organizations of the College of Business and the university.

Donald E. & Bernadette Hugus Crooks Scholarship: Established by Bernadette (Hugus) and Donald Crooks for students who demonstrate strong work ethic and desire to excel. Candidates must be enrolled in the College of Business Administration with preference given to marketing majors who must have a minimum 2.8 QPA. This scholarship is renewable for up to four years if the candidates maintain the required academic criteria while majoring in a program of the College of Business Administration. Student records are reviewed for this award via their admission materials.

FBLA Scholarship: This \$500 tuition credit scholarship is for an incoming freshman majoring in business administration who is involved with the Pennsylvania Future Business Leaders of America.

Edward G. Kriebel Family Scholarship: Designed to attract students who possess entrepreneurial skills, are dedicated to quality and hard work as demonstrated by the Kriebel family, and who exhibit need not met by federal or state aid. First preference is given to Allegheny-Clarion Valley or Union high school graduates, second preference to graduates of other Clarion County high schools and last preference to graduates of other surrounding area high schools. This scholarship award is renewable for up to four years if the

candidates maintain the required academic criteria while majoring in a program of the College of Business Administration. Student records are reviewed for this award via their admission materials.

Charles P. Leach Sr. Scholarship: Awarded annually to an outstanding business student. Eligible students must be of at least sophomore standing and are selected on the basis of academic record, contribution to the College of Business Administration and the university, and participation in extracurricular activities such as professional organizations.

S & T Bank Endowed Scholarship: Established by S & T Bank for graduate students enrolled in the M.B.A. Program offered by the College of Business Administration. Candidates must have attained a minimum college or university QPA of 3.5 and attained a score of 550 on the Graduate Management Admission Test (GMAT). First preference is given to Pennsylvania residents.

Accountancy

Unless otherwise indicated, information on Accountancy scholarships can be obtained by contacting the department at 814-393-2628.

Accountancy Department Endowed Scholarship: Annually, two scholarships are awarded by the Accountancy Department's Endowment Fund established through the Clarion University Foundation. Criteria used in selecting the recipients include senior standing, academic record, classroom performance, and participation in university activities.

William and Olive Barnes Scholarship: Established by Greg Barnes, professor of accountancy, in honor of his parents. Applicants must have a minimum SAT score of 1,100, and rank in the upper two-fifths of their high school class. First preference will be given to accounting majors, then other undergraduate business majors. Contact the Office of Admissions at 814-393-2306.

Institute of Management Accountants Senior Scholarship: Four awards are made by the Board of Directors of the Northwest Keystone Chapter of the IMA to senior accounting majors. Students must maintain a 3.5 overall QPA as well as a 3.5 QPA in accounting. Deadline for applications is October 1. Recipients are selected on the basis of scholastic achievement, involvement in extracurricular activities, and statement of goals.

Gary L. Merz Memorial Scholarship: Established in the memory and recognition of accounting professor Gary L. Merz for his many contributions to the university, Accountancy Department, students, and community. The annual scholarship will be awarded to a senior accounting major based upon academic performance.

Charles J. Pineno Accounting Scholarship: Established to honor Dr. Pineno, Department of Accountancy. Candidates must be senior accounting majors. Awarded on the basis of academic performance and service to the department.

Pennsylvania Institute of Certified Public Accountants Scholarship: PICPA awards \$33,000 in scholarships, consisting of five \$3,000 and 12 \$1,500 awards, to full-time sophomore students enrolled at Pennsylvania colleges and universities. Application should be made before March 1. Eligible applicants must be full-time students and have completed 12 semester credits in accounting. Applicants are required to submit letters of recommendation. Selection is based upon scholastic achievement and qualities of leadership and is made by the trustees of the PICPA scholarship fund.

Harry Joseph Smith Memorial Scholarship: Established by David C. Smith ('64) in memory of his father to provide an annual scholarship to an accounting major. Applicant must be a full-time undergraduate student, have a minimum SAT score of 1,000, and must demonstrate financial need as per FAFSA which must be on file by the application date.

Administrative Science

Dr. Leonard and Sally Ann Ackerman Scholarship: Established by Sally Ann Ackerman, at least two scholarships are awarded to management or industrial relations majors. Awards are available to sophomores, juniors and seniors who have completed at

least 30 credits at Clarion University with a 3.25 minimum QPA. For more information contact the department of Administrative Science at 814-393-2626.

Economics

Enid Dennis Memorial Scholarship: Available to junior and senior economics majors, this scholarship honors Enid Dennis, former professor of economics. The purpose of the award is to reward academic accomplishments and provide incentives to students in the field of economics. Contact the chair of the Economics Department at 814-393-2627.

Economics Department Scholarship: Awarded based upon a high degree of academic achievement along with a significant level of leadership in college and/or community activities. Contact the chair of the Economics Department at 814-393-2627.

Finance

Unless otherwise indicated in the description, information on Finance scholarships can be obtained by contacting the department office at 814-393-2626.

H. G. Burns Center for Finance and Insurance Scholarship: The Burns Center awards scholarships to incoming students interested in a career in insurance, finance, or real estate. Candidates must have a minimum SAT score of 1,100, be in the top two-fifths of their class, and have demonstrated effective extracurricular participation. Recipients can continue to receive the scholarships throughout their four years provided they maintain a 3.25 QPA. Student records are reviewed for this award via their admission materials; no scholarship application is required.

Burns and Burns Scholarship: Available to students majoring in finance, real estate, and insurance. The award process is initiated by faculty nominations. Nominees are required to submit a resume and are evaluated on academic achievement and contributions to the department, the College of Business Administration, Clarion University, and the local community.

Gray Real Estate Scholarship: Provides scholarships for high-achieving students majoring in real estate or finance. Students must be of sophomore standing or higher and have completed six credits in real estate.

Marketing

Unless otherwise indicated in the description, information regarding Marketing scholarships can be obtained by contacting the department office at 814-393-2628.

Paul Y. Kim Advertising Management Scholarship: Established through the Clarion University Foundation by Dr. Paul Y. Kim, professor and chair of the Marketing Department. The scholarship is awarded to an outstanding marketing major who plans for a career in the field of advertising management. Recipient selected on the basis of academic achievement, extracurricular activities, and service to the department.

Marketing Management Scholarship: Established through contributions from alumni, friends and faculty of Clarion's Marketing Department. The award is made to a student planning a career in marketing management.

Marketing Research Scholarship: As part of class projects, teams of marketing research students entered the Arresdust Research Project Competition in 1988 and 1989. The Clarion University teams, coordinated by faculty advisor Dr. Paul Kim, won first prize two years in a row. An endowed scholarship was established to honor the recipients of the awards and to preserve the department's heritage of excellence in marketing research. The scholarship is awarded annually to an outstanding marketing major who plans a career in marketing research.

Retail Management Scholarship: Established by the Marketing Department to fund awards for majors. The award is made to a student planning a career in retail management.

Bonnie Silvertongue Memorial Marketing Scholarship: Established by the faculty, staff, friends, and former students in memory of Silvertongue, who died of cancer while teaching in the Department of Marketing. The scholarship is awarded to an outstanding business major who plans for a career in the field of marketing. Selection criteria include academic achievement, extracurricular activities, and service to the university community.

College of Education and Human Services

Communication Sciences and Disorders (CSD)

Unless otherwise indicated in the description, information on CSD scholarships can be obtained by contacting the department office at 814-393-2581.

Marian Renn Marshall Graduate Fellowship (Graduate Students): Established through the Clarion University Foundation in memory of Marian Renn Marshall. The award offers assistance to graduate students admitted to the communication sciences and disorders graduate program. Selection is made by the CSD Department on the basis of academic record.

Edwin R. "Jack" Simpson Scholarship: This scholarship was established by family, friends and members of the Communication Sciences & Disorders program to honor Mr. Simpson who joined the faculty in 1966 and taught for 22 years. In recognition of his commitment to the CSD department, a Simpson Scholarship recipient will be selected each year by a departmental committee. Awards will be made based upon the student's academic record and service to Clarion University.

Education

Fred L. and June McCall Burns & Family Scholarship: Established by Dr. Max H. Burns in honor of his parents Fred and June McCall Burns. Candidates must be seeking a degree in music, drama, or mathematics or in the education fields of music, drama, or mathematics. Contact the Foundation Office for additional information.

Clarion County Chapter of the PA Association of School Retirees Scholarship: One scholarship is awarded annually. Candidates must have graduated from a Clarion County high school or have been a resident of Clarion County at the time of high school graduation. Application is made in the spring to the Education Department chair at 814-393-2404. Selection is based on academic record, contribution to department and university, participation in extracurricular activities, and leadership skills. Letters of recommendation are required.

Robert & Diana Coury Scholarship: This scholarship was established to honor Robert ('52) and Diana Coury who were strong advocates of Clarion University. The purpose of this award is to provide financial support to outstanding students in the college of education and to carry on Bob's career emphasis of valuing education opportunities and helping young people. This scholarship is based on academic performance and promise of outstanding service to the profession. Contact the Dean of Education at 814-393-2404.

Eric Flath Scholarship: This scholarship will be established from the estate of Clarion University graduates Robert ('50) and Marilyn ('67) Flath to honor their son and will provide education assistance for Clarion University students pursuing a career in the fields of special education or social service. Applicants must be permanent residents in the Keystone or Oil City school districts and the scholarship will alternate each year between the two schools. The scholarship will be available up to four years dependent upon the recipient maintaining a 3.0 QPA in his/her major and demonstrating successful progress toward completion of a degree. Students who receive athletic scholarships are not eligible.

Wilma Best Logue Education Scholarship: Awarded annually to an incoming freshman planning to major in education at Clarion University. Candidates must be a graduate of Keystone High School.

Student records are reviewed for this award via their admission materials.

Elementary Education

Laura Taylor Booth Presidential Scholarship: Established by Oleta B. Amsler in honor of her mother. It is intended to support a freshman elementary education student who resides in Elk County. Second preference is given to residents of Western Pennsylvania. Special emphasis is placed on academic achievement, demonstrated leadership, and involvement in community and extracurricular activities. There is opportunity for the student to receive the award in subsequent years. Student records are reviewed for this scholarship upon receipt of their admission materials; no scholarship application is required.

Marlin & Cleva Hartman Scholarship: This scholarship was established by Marlin ('59) & Cleva Haight ('59) Hartman to aid children of United States veterans. Preference is given to an incoming freshman who is the son or daughter of a United States veteran, has declared a Math, Math/Education or Elementary Education major, and has financial need as shown by a submitted FAFSA form. Student records are reviewed for this scholarship upon receipt of their admission materials; no scholarship application is required.

Parma Dixon Mooney Scholarship: Awarded annually to freshmen or transfer students majoring in elementary education. Candidates must be residents of Clarion County or graduates of a Clarion County high school. Selection based upon academic record, participation in extracurricular activities, and leadership skills. Contact the Admissions Office at 814-393-2306.

Earl R. Siler Memorial Scholarship: Established in memory of Dr. Earl Siler to recognize graduate or undergraduate students, in the areas of elementary education or early childhood, in their professional development activities. Contact the chair of the Education Department at 814-393-2404.

Library Science

Unless otherwise indicated in the description information on Library Science scholarships can be obtained by contacting the department office at 814-393-2271.

Charles R. Flack Scholarship in Library Science: Established in memory of Charles R. Flack, former head of the Department of Library Science at Clarion. Offered to a sophomore or junior enrolled in the Bachelor of Science in Education degree at Clarion or in the Master of Science in Library Science degree program for full-time continuous study. Further criteria include evidence of professional potential in librarianship based upon earned grades and a written statement of personal and professional goals as well as significant contributions to the purposes and activities of the Department of Library Science. Preference shall be given to a physically challenged student who meets the above criteria.

Eleanor DeWald Moore Scholarship: Recognizes Eleanor DeWald Moore, an alumna of Clarion ('42), an associate professor 1956 to 1972, serving first as assistant librarian in Carlson Library and later as a faculty member of the College of Library Science. This fund provides an award to an undergraduate student of junior or senior standing who is preparing for a career in school librarianship. Selection criteria include professional potential in librarianship based upon earned grades and a written statement of personal and professional goals.

Elizabeth A. Rupert Graduate Scholarship in Library Science: Established in honor of Dr. Elizabeth A. Rupert, an alumna of Clarion ('59) who also served as dean of the College of Library Science from 1971 until her retirement. The purpose of the scholarship is to give personal encouragement and financial support to a promising graduate student seeking a career in librarianship by completing the Master of Science in Library Science degree at Clarion.

Helen and Lawrence Smith Scholarship: These scholarships are made possible by an endowment established by Mrs. Helen Smith in memory of her husband. Applicants must be full-time students at the junior or senior level majoring in library science or mathematics, must have completed at least 64 credits, and have a QPA of 3.0 or higher. The scholarships are available for a second year, provided students maintain the academic standards required.

H.W. Wilson Scholarship (Graduate Students): Awards totaling \$5,000 are made every five years to graduate students majoring in library science. Recipients are chosen on the basis of academic excellence and financial need. Selection is made by the departmental scholarship committee, and payment is made by the H.W. Wilson Foundation through the Clarion University Foundation.

Secondary Education-English

Gilbert Neiman Scholarships: Established in memory of Dr. Neiman, former professor of English at Clarion University. Three awards are made each year, one each to a junior, sophomore, and freshman who major in English, liberal arts, or secondary education English. Freshman applicants must submit a creative writing or critical essay, recommendation from a senior English teacher, and a high school transcript. Application should be made after the student has been accepted at Clarion with the English Department at 814-393-2482.

Secondary Education-Mathematics

Tom A. Carnahan and Mel A. Mitchell Secondary Education/Mathematics Scholarship: Established to benefit Clarion students enrolled in the secondary education/mathematics degree program. Award made to full-time students admitted to the Teacher's Certification Program who have achieved a minimum of 3.0 QPA in completed mathematics courses. The Office of the Dean of Education will be responsible for mailing applications to all eligible students. In addition to submitting an application, students are required to provide two letters of recommendation. Students are eligible to apply for the scholarship for a second year.

Marlin & Cleva Hartman Scholarship: This scholarship was established by Marlin ('59) & Cleva Haight ('59) Hartman to aid children of United States veterans. Preference is given to an incoming freshman who is the son or daughter of a United States veteran, has declared a math, math/education or elementary education major, and has financial need as shown by a submitted FAFSA form. Student records are reviewed for this scholarship upon receipt of their admission materials; no scholarship application is required.

Secondary Education-Social Studies

John Francis Salvucci Scholarship: This scholarship was established by Mr. & Mrs. Gene Salvucci in memory of their son, John, who graduated from Clarion with a history degree in 1981. Incoming freshmen who are enrolled in the secondary education/social studies program will be given first consideration with second preference given to an incoming freshman who has declared a history major. To be considered, applicants must have a minimum SAT score of 1,100, and be in the upper two-fifths of their high school graduating class. Amounts vary, but are usually \$1,500. Student records are reviewed for this scholarship upon receipt of their admission materials; no scholarship application is required.

Special Education

Kenneth and Marjorie Vayda Scholarship: Available to an upperclass student majoring in special education or rehabilitative sciences. Minimum requirements include achieving a 3.5 QPA and active involvement with people who have handicaps.

Ginny Thornburgh Recognition Scholarship: Awarded each year to an outstanding junior or senior majoring in special education. Selection is based upon academic record (minimum 3.5 QPA) and service to exceptional individuals. Contact the Special Education and Rehabilitative Sciences Department chair at 814-393-2325.

Special Education/Rehabilitative Science Freshman Scholarship: Established by the Department of Special Education and Rehabilitative Sciences and offered to a freshman majoring in special education or rehabilitative science. The recipient of the award will be selected based upon academic achievement, leadership, and community service. Contact the chair of the Department of Special Education and Rehabilitative Sciences at 814-393-2325.

Scholarships-Venango Campus

General

Unless otherwise indicated in the description, information on Venango Campus scholarships can be obtained by contacting the chair of the Venango Campus Scholarship Committee at 814-676-6591, ext. 211.

Ronald E. Black Endowed Scholarship: Provides an award to a student at the Venango Campus. Preference is given to adult students who are residents of Venango County.

Dr. Thomas A. Gardner, Radiologic Sciences Scholarship: Established in honor of Dr. Gardner by family and friends. Candidates must be enrolled in the baccalaureate degree program in radiation technology at the Clarion University Venango Campus.

William Huber Sr. Memorial Scholarship: This scholarship was established by friends of William Huber, a Venango County resident, who was an exceptional guitarist and extremely active in the community. Eligible recipient must be an active community member.

Dr. Glenn R. McElhattan Scholarship: Established to honor Dr. McElhattan, a Clarion alumnus and Chemistry Department faculty member at the Venango Campus. Eligible candidates must be high school seniors enrolled at the Venango Campus for their freshman year. Awards are granted based upon academic achievement.

Northwest Medical Center Women's Auxiliary Health Career Fund Scholarship: Three scholarships contributed by the Health Career Fund are awarded by the Venango Campus Scholarship Committee to Venango, Forest, and Clarion County residents attending Venango Campus for educational purposes in the health career fields.

Oil City Lions, Lillian (Shaw) Shinkle, and Ted Shaw Scholarship: Established by the Oil City Lions Club in honor of Lillian Shaw Shinkle and Ted Shaw. Eligible candidates must be recent graduates of Oil City or Venango Christian high schools and must be entering their first year of study at Venango Campus. Scholarship recipients may reapply in their second year of study at either Venango Campus or Clarion Campus.

Oil City Rotary Club Scholarship: Awarded by the Oil City Rotary Club through the Clarion University Foundation. Recipient must be a graduate of either Oil City, Cranberry, or Venango Christian high schools. Recipient selected on the basis of academic record, financial need, and participation in extracurricular activities.

Oil City Second Presbyterian Women Scholarship: Six scholarships provided annually to the Venango Campus Scholarship Committee by this organization. Priority is given to Venango County residents with financial need. The award may be renewed in succeeding years.

Pennzoil Scholarship Endowment: Two scholarships are made available by the foundation through an endowment account established by Pennzoil. Award criteria are based on academic achievement and financial need.

John N. and Sarah H. Rees Scholarships: Provided through a generous donation from the Rees Charitable Foundation. The gift provides scholarships for Venango Campus students in two areas, academically gifted students and first-time-in-college adult.

Regional Vision Leadership Scholarship: This scholarship was established by Regional Vision Leadership Development for Rural Northwest Pennsylvania to assist Venango Campus students who exhibit leadership qualities in their community and/or school.

Dr. Richard Sabousky Scholarship: Distributed to a student completing his or her first year of the OTA program at Venango Campus. Selection based on the highest QPA obtained by a student in the program.

Laura A. Smedley Scholarships: Scholarships, not limited in number and not specified in amount, are granted to Venango Campus students who are graduates of secondary schools serving Venango County. Eligible students must be full-time students enrolled in any associate degree program. Selection is made based upon financial need and academic record. Instructions for the complete application process can be obtained from Stephen Kosak, Box 374, Oil City, PA 16301. Deadline for submission of application is April 15.

Venango Campus Scholarships: Several scholarships are available through the Venango Campus Scholarship Committee for students attending Clarion University's Venango Campus.

Frank and Clara Williams Scholarship: These scholarships, not limited in number, and not specified in amount, are granted to Venango County residents. Eligible students must be full-time freshmen or sophomores and be enrolled in a four-year degree program. Selection is made based upon financial need and academic record. Applications may be obtained from Stephen Kosak, Box 374, Oil City, PA 16301.

Zonta Club Scholarship: Two \$500 awards are made available by the Zonta Club of Oil City-Franklin. Award recipients must be students who reside in Venango County. Consideration is based upon the students' academic record, financial need, and participation in extracurricular activities.

Nursing

Arthur J. Acton Pittsburgh Site Scholarship: This scholarship fund was established to aid students enrolled at Clarion University's Pittsburgh site. It is based on financial need, scholarship, and number of enrolled credits. Contact the Pittsburgh site office at 412-578-1497 for additional information.

Elizabeth M. McCord Scholarship: Established by the McCord family in honor of Mrs. McCord and her service to the university's Health Center. Eligible candidates are full-time graduate students in the M.S.N. Family Nurse Practitioner program. Second preference is to students with six or more graduate credits each semester. Thereafter, consideration will be given to bachelor's degree students and, finally, associate degree candidates within the School of Nursing. For further information, contact the School of Nursing at 814-676-6591.

Dr. and Mrs. Arthur William Phillips Scholarship Fund: Made possible by a donation from the Dr. and Mrs. Arthur William Phillips Charitable Trust of Oil City. They are available to students enrolled or planning to enroll for undergraduate work in the Nursing Program or other programs related to medicine. They must have attended high school or been a permanent PA resident for at least the past three years in Allegheny, Butler, Clarion, Crawford, Erie, Forest, Mercer, or Venango counties; who have achieved positive academic records or manifest promise of academic success; and have good moral character. Financial need shall be considered secondarily. Further information can be obtained from the School of Nursing at 814-676-6591.

Lyle G. Reinhard Scholarship: Established by President Diane Reinhard in memory of her father. Award criteria consistent with the Foundation Leadership Scholarships as described above. One award is for any major and one is designated for nursing.

Dolores Sherman Scholarship: Provides an annual award for full-time students pursuing a B.S. degree in nursing. Candidate selection criteria include grades in nursing course work, overall academic record, financial need, recommendation of nursing instructors, and service to the university and/or the nursing profession. Payment is made to the university as a tuition credit by the foundation. For further information, contact the chair of the Venango Campus Scholarship Committee at 814-676-6591.

Dorothy Story Smith Memorial Scholarship: Established by David C. Smith ('64) in memory of his mother. The award will provide

an annual scholarship to a Clarion University nursing student. Eligible candidates must be full-time undergraduate students, have a 1,000 SAT score, and demonstrate financial need per the FAFSA application which must be on file by the application deadline. For further information, contact the School of Nursing at 814-676-6591.



Awards

In addition to the many available scholarships, the university also is very proud of its academic achievement, leadership, and service awards, such as:

College of Arts and Sciences

Anthropology, Geography, and Earth Science

Norman Humphrey Geography/Earth Science Award

Biology

Commonwealth of Pennsylvania University Biologist Award

Chemistry

American Institute of Chemists Award

CRC Press-Freshman Achievement Award

Chemistry Department Competitive Award

Outstanding Senior Award

Communication

Outstanding Communication Senior Award

Computer Information Science

Data Processing Management Association Outstanding Student Award

English

English Association of Pennsylvania State Universities Award

Francis G. Greco English Award

Max Nemmer Award

History

Gilbert Hill Award

History/Social Science

Frank Campbell Award

Humanities

Eileen M. Thornton Humanities Award

Mathematics

Mathematical Association of America Award

Pi Mu Epsilon Honorary Award

Modern Languages

French Consul Award in French

Consul General's Award for Achievement in German

Award for Excellence in Spanish

Speech Communication and Theatre

Alpha Psi Omega/Allan Kroh Memorial

Copeland Fellowship Award

Daniel Preuh's Memorial for Musical Comedy

Daniel Preuh's Memorial for Talent in Theatre

Silver Fox Award for Comedy

Mary Sterrett and Elbert R. Moses Jr. Award

College of Business Administration

All Majors

Wall Street Journal Student Achievement Award

Accountancy

Institute of Management Accountants Senior Award

Pennsylvania Institute of Certified Public Accountants Senior Award

Administrative Science

Outstanding Administrative Science Student of the Year

Economics

Omicron Delta Epsilon Award for Distinguished Service

Omicron Delta Epsilon Award of Honor for Academic

Achievement and Leadership

Omicron Delta Epsilon Award for Outstanding Achievement in Economics

Marketing

Outstanding Marketing Student of the Year

College of Education and Human Services

Communication Sciences and Disorders

National Student Speech-Language-Hearing Association Honor Award

Speech Pathology and Audiology Honor Award

Education

Kappa Delta Pi Award

Dr. John N. "Jay" Moorhouse Award

Dr. Lawrence A. Smith Outstanding Senior Award

University-Wide Awards

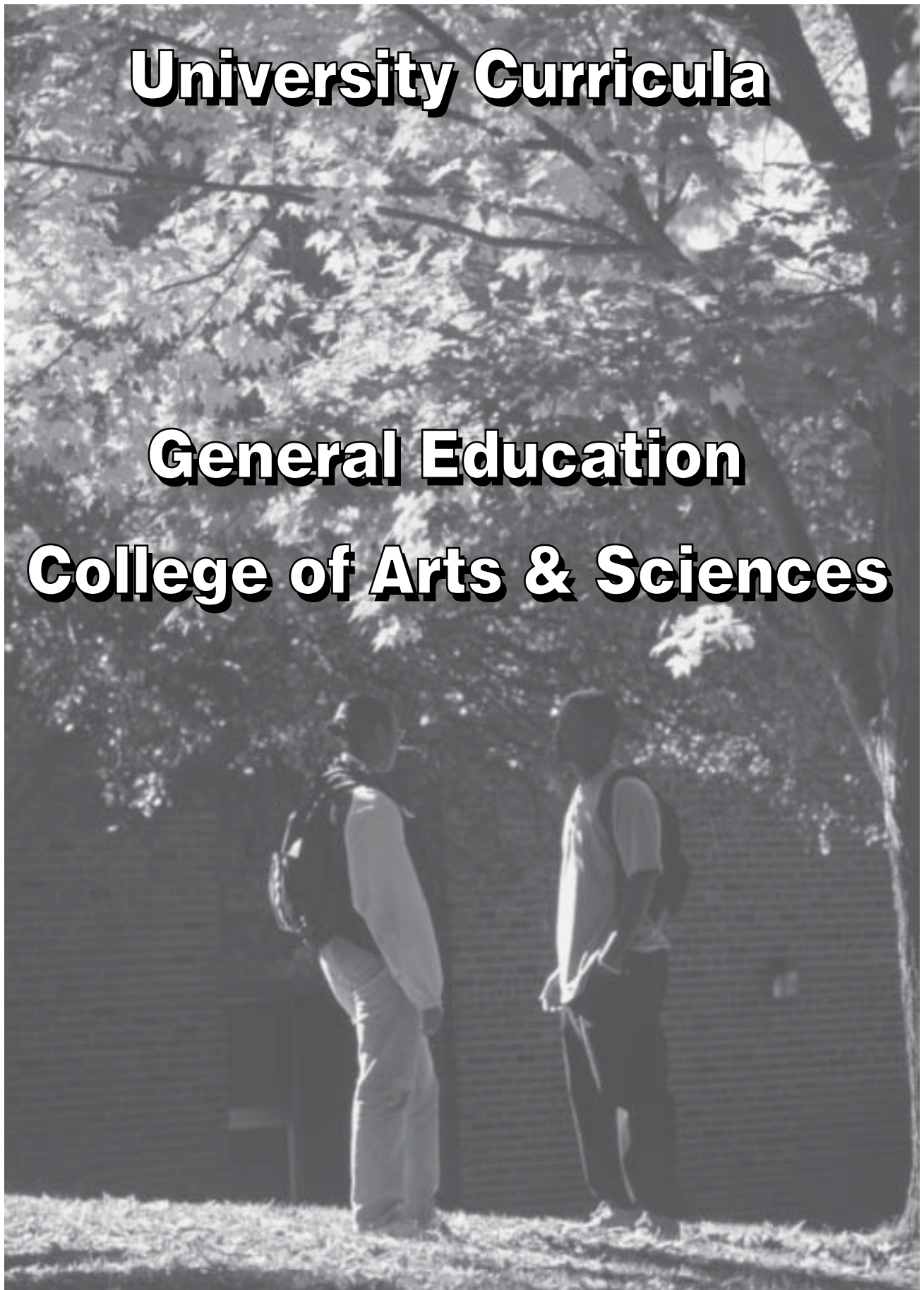
Leadership

James Gemmell Leadership Award

University Curricula

General Education

College of Arts & Sciences



University Curricula

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 area of 52 semester hours in general education. Students should select their general education courses carefully in consultation with their faculty advisors.

Undergraduate Education

Undergraduate education at Clarion University begins with course offerings and expands with co-curricular activities, student living arrangements, special cultural events in the university and the larger community, and opportunities for relevant work through participation in assistantships, internships, and student and community organizations.

The university's curriculum enables students to acquire skills, knowledge, and attitudes necessary to attain the goals students set for life. The university believes students should graduate with a distinguished level of abilities and with attitudes necessary to continue developing and refining those abilities. Thus graduates of Clarion University should:

1. be able to read and listen, speak and write with a degree of sophistication;
2. be able to think critically and analytically;
3. possess a broad awareness of human heritage;
4. possess a significant sense of the influence of global affairs on personal and national life;
5. comprehend an academic discipline;
6. formulate, examine, and be guided by conscious personal and social values;
7. be able to recognize and exercise wise choices in life;



8. possess the skills and attitudes necessary to continue to learn throughout life; and
9. be able to participate effectively and usefully in society.

These nine goals for undergraduate education at the university are applicable to the lives of all students regardless of major. All nine of them, taken together, represent the definition of an education which guides Clarion University.

General Education Distribution

Goals and Purposes

A Clarion University education consists of both disciplinary and general education. Disciplinary education aims to prepare a student to enter the workforce in a particular vocation, profession, discipline, or area of study. General education aims to assist the student's development as a person and as a citizen.

A baccalaureate program at Clarion University provides students with both a specialized and a liberal education. A specialized education provides depth of knowledge in an academic discipline and in a career area. A liberal education provides the basis for specialized studies and for life within and beyond the university.

Students have the freedom to select the academic major and elective courses in which they are interested. The general education curriculum provides students with the opportunity to explore a variety of subjects that not only serve their interests but community needs as well.

Students lay out their disciplinary and general education curriculum. Here is an outline of general education requirements:

General Education Requirements

- I. Liberal Education Skills (in writing, mathematics, and communication)—15 credit hours to include:
 - A. Writing II
 - 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)—four credits to include:

A. Health and wellness (one course)	2 credits
B. Personal performance (two courses)	1 credit each
- IV. General Education Elective (for further exploration of areas of interest and continued broadening of studies)—sufficient course work to bring the total for general education to 52 credits from an approved list in areas of skills or liberal knowledge. These may not be in your major, nor a health or personal performance course.



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, and to engage in quantitative reasoning. You will need to be sure courses selected in general education and in the major show a total of five flags in the following categories:

In general education:

- * One first-year **Values Flag**—promotes reflections on personal values, interpersonal values, and societal values.

In the major or general education:

- * 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.
- * A second **Values Flag**—encourages exploration in human values, applied values, or ethics in a particular context.

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.

College of Arts and Sciences

Stanton W. Green, Ph.D., dean

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Accreditations

American Chemical Society (ACS) – Approval only

College Reading and Learning Center (CRLC)

National Association of Schools of Music (NASM)

Degree Listing

Anthropology (B.A.)

Anthropology (Minor)

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

2-D Studio (Minor)

3-D Studio (Minor)

Art/Art History (Minor)

Ceramics*

Drawing*

Dual Drawing*

Fiber/Fabric*

Graphic Arts*

Painting*

Printmaking*

Sculpture*

Biology (B.A., B.S.)

Biology (Minor)

Biotechnology (Minor)

Ecology and Evolutionary Biology*

Environmental Biology (B.S.)

Environment and Society (Minor)

Freshwater Ecology*

Marine Ecology*

Medical Technology (B.S.)

Molecular Biology/Biotechnology (B.S.)

Natural Sciences (B.A.)

Terrestrial Ecology*

Chemistry (B.A., B.S.)

Chemistry (Minor)

Chemistry/Business*

Communication (B.S.)

Computer Science (B.S.)

Computer Science (Minor)

Earth Science (B.S.)

Economics (B.A.)

Engineering Coop. Programs

Engineering/Chemistry*

Engineering/Mathematics*

Engineering/Physics*

English (B.A.)

Literature (Minor)

Writing (Minor)

Environmental Geoscience (B.S.)

Film Studies (Minor)

French (B.A.)

French (Minor)

Geography (B.A., B.S.)

Geographic Information Science (Minor)

Geography (Minor)

Geology (B.S.)

German (Minor)

Gerontology (Minor)

History (B.A.)

Ancient Mediterranean Studies (Minor)

Black Studies (Minor)

History (Minor)

Humanities (B.A.)

Industrial Mathematics (B.S.)

Information Systems (B.S.)

Information Systems (Minor)

Liberal Studies (A.A.—Venango, B.S.)

Library Science*

Mathematics (B.A., B.S.)

Mathematics (Minor)

Mathematics/Statistics (Minor)

Music—Elective Studies in Business (B.M.)

Music (Minor)

Philosophy (B.A.)

Philosophy (Minor)

Religious Studies (Minor)

Physics (B.A., B.S.)

Physics (Minor)

Political Science (B.A.)

Political Science (Minor)

Psychology (B.A., B.S.)

Psychology (Minor)

Social Sciences (B.A.)

Sociology (B.A.)

Social Work (Minor)

Sociology (Minor)

Sociology/Psychology (B.A.)

Spanish (B.A.)

Spanish (Minor)

Speech Communication (B.A., B.S.)

Speech Communication (Minor)

Theatre (B.A., B.F.A.)

Acting* (Minor)

Dance (Minor)

Technical Design/Direction*

Musical Theatre*

Technical (Minor)

Women's 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, Patrick McGreevy, Ph.D., chair

335 Peirce Science Center

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E-mail address: pmcgreevy@clarion.edu

Website: www.artsci.clarion.edu/ages/ages.htm

Professor: Straffin; **Associate Professor:** Prezzano

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. Anthropology is divided into four sub-disciplines. These are biological anthropology, linguistics, archaeology, and socio-cultural anthropology. The anthropology program at Clarion is part of the AGES department. The program offers courses in all four of the anthropological sub-disciplines. A major in anthropology provides a firm basis for exploring careers in museums, aid agencies, businesses, governments, forensics, teaching, and pursuing an advanced degree in anthropology. 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. Registering for the archaeological field school gives students the hands-on experience of excavation an ancient site. This course trains participants for immediate employment in public archaeology.

ANTHROPOLOGY, B.A. 51 credits

Required: ANTH 211, 213, 362, 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, or geography. Students may choose either foreign language competency or computer science/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.

Anthropology Courses

ANTH 211: ANTHROPOLOGY

3 s.h.

Deals with the origin, diversification, and evolution of the human way of life (cultures) from extinct primitive systems to modern industrial civilizations. Introduces anthropology (the study of humankind) emphasizing the nature and concept of culture. Some work is done in physical anthropology. Emphasizes the simple and complex cultures of the world with specific readings in each category. 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. No prerequisite. Alternate years.

ANTH 214: PRINCIPLES OF HUMAN ECONOLGY

3 s.h.

Examines the functional interrelationships of humankind and the biophysical environment. No prerequisite. Alternate years.

ANTH 216: WOMAN 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 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. Every second year.

- 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. Every second year.
- 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/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 analysis of oral traditions. No prerequisite. Spring, annually.
- ANTH 357: INDIANS OF SOUTH AND CENTRAL AMERICA** 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. Every second year.
- 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. Every second year.
- 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. Every second year.
- 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. Spring, odd-numbered years.
- ANTH 365: HISTORY OF MATERIAL CULTURE** 3 s.h.
 Introduces the technological foundations of civilizations, classes of material culture, and artifact types. Familiarizes students with the origin of metal, ceramics, glass fibers, and plastic. A background in material culture is important for students concentrating in the history of technology and anthropology, and is broadly applicable to any students interested in artifacts and technology. Offered every second year.
- ANTH 375: SUMMER 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.
- 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 21. On demand.
- 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.

Art

Department of Art, Gary Greenberg, M.F.A., chair

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Website: eagle.clarion.edu~faculty/jrose/artclarion.html

Professor: Joslyn; **Associate Professor:** Thomas; **Assistant Professors:** Colvin-Woodruff, Greenberg, Malley, Nowlin, 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. Whether you're interested in art history, ceramics, drawing, textiles, graphic arts, painting, printmaking, or sculpture, these professionally active professors will work to help you express yourself and to understand the uses and meanings of visual art in society. Our well-equipped studios support B.A. and B.F.A. degree programs in all the above areas. In our new state-of-the-art multimedia studio, students evolve into professional graphic designers and illustrators; recent renovations have provided new opportunities in the design, jewelry, and fibers studios.

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 110, 121, 122, 125, 126, 211, 212; three additional credits in art history; six credits in art foundation courses, 12 credits in an art concentration (ceramics, drawing, weaving and fiber sculpture/fabric surface design, graphic arts, painting, printmaking, sculpture and art history); 12 credits in art electives; capstone project; and foreign language competency.
- ART, B.F.A.** 72-75 credits
Required: ART 110, 121, 122, 125, 126, 211, 212; six additional credits in art history; 18 credits in art foundation courses; 18 credits in an art concentration (ceramics, drawing, weaving and fiber sculpture/fabric surface design, graphic arts, painting, printmaking, or sculpture); 12-15 credits in art electives; and the senior art show. Seventy-five credits are required only for majors seeking a dual drawing concentration.
- ART, MINOR WITH 2-D STUDIO** 21 credits
Required: ART 121 or ART 122; ART 125; three credits in art history or ART 110; nine credits in one two-dimensional studio area; three credits in one other studio area (drawing, fabric surface design, graphic arts, painting, or printmaking); three credits in one other studio area; and the capstone exhibit project.
- ART, MINOR IN 3-D STUDIO** 21 credits
Required: ART 121 or ART 122; ART 126; three credits in art history or ART 110; nine credits in one three-dimensional studio area (ceramics, weaving and fiber sculpture, sculpture or jewelry); three credits in one other studio area; and the capstone exhibit project.
- ART, MINOR IN ART HISTORY** 18 credits
Required: ART 110, 211, 212; nine additional credits in art history.

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: DRAWING I** **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 122: FIGURE DRAWING I** **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. Required of all art majors. Spring Semester and on demand.
- 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. Fall Semester and 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. Spring Semester.
- ART 131: PAINTING I** **3 s.h.**
 Introduces painting in oils. Students explore basic materials and techniques of painting. Stresses fundamentals of pictorial organization and visual expression. Prerequisite: ART 121 or 125. Each semester.
- ART 141: SCULPTURE I** **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 145: ILLUSTRATION I** **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 use of the principles of design, creative problem-solving, and the integration of illustrations into designed pieces. Fall Semester, annually, or on demand.
- ART 151: CERAMICS I** **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 155: GRAPHIC DESIGN AND COMPUTER I** 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 125. Spring Semester, annually, or on demand.
- ART 161: WEAVING AND FIBER SCULPTURE I** 3 s.h.
Woven and off-loom textile construction; applying design principles in original art making, with attention to the multicultural historical context of textile art traditions. Fall, annually, and on demand.
- ART 165: FABRIC SURFACE DESIGN I** 3 s.h.
Patterning of cloth with direct printing techniques and shibori (tie-dyeing); applying design principles in original art making, with attention to the multicultural historical context of textile art traditions. Spring, annually, and on demand.
- ART 171: PRINTMAKING I** 3 s.h.
Includes a brief history of printmaking and present problems in composition utilizing basic techniques, materials, and principles of printmaking. Students work with printmaking processes such as relief, intaglio, lithography, or monotype. May include photographic and computer processes. Options vary each semester. No prerequisite. Each semester.
- ART 181: JEWELRY I** 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 190: TEACHING ART IN THE ELEMENTARY GRADES** 3 s.h.
Analyzes the place of art in the elementary school curriculum, and provides the skills and knowledge needed to teach art. Develops classroom planning, presentation, motivation methods, and lesson plans in workshops or actual teaching situations. 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. Spring Semester.
- ART 222: DRAWING II** 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. Offered concurrently with ART 121. Prerequisites: ART 121, 122. Each semester.
- ART 223: FIGURE DRAWING II** 3 s.h.
Continues exploring the figure and its expressive potential. In-depth analysis of anatomy, including musculature and surface features. Expanded media and problem solving. Offered concurrently with ART 122. Prerequisites: ART 121, 122. Spring Semester and on demand.
- ART 232: PAINTING II** 3 s.h.
Continues exploring a range of techniques, emphasizing solving visual and color problems as a vehicle for personalized expression. Prerequisite: ART 131. Each semester.
- ART 242: SCULPTURE II** 3 s.h.
Continues and expands experiences and directions established in Sculpture I. Prerequisite: ART 141. Each semester.
- ART 246: ILLUSTRATION II** 3 s.h.
Utilizes skills and knowledge acquired from Level I to produce portfolio quality pieces. Emphasizes the creative process and advanced software knowledge. Offered concurrently with ART 145. Prerequisite: ART 145. Fall Semester, annually, or on demand.
- ART 252: CERAMICS II** 3 s.h.
Students work with the technical aspects of ceramics-glaze formulation, experiment with natural local clays and desired clay bodies, decorating methods, glazing, and firing techniques while pursuing individual interests. Students work on an independent level investigating interests leading to a final individual critique of work accomplished. Prerequisite: ART 151. Each semester.
- ART 256: GRAPHIC DESIGN AND COMPUTER II** 3 s.h.
Continues exploring layout, typography, and computer graphics. Students build on the skills and knowledge acquired from Level I to produce portfolio quality pieces. Emphasizes advanced computer software techniques. Offered concurrently with ART 155. Prerequisite: ART 155. Spring Semester, annually, or on demand.
- ART 262: WEAVING AND FIBER SCULPTURE II** 3 s.h.
Continues study of textile structure and processes in historical context. Develops compositional skills and expressive personal imagery. Prerequisite: ART 161. Fall, annually, and on demand.
- ART 266: FABRIC SURFACE DESIGN II** 3 s.h.
Direct, immersion, and printed application of dyes; development of compositional skills and expressive personal imagery; attention to the historical context of textile art traditions. Prerequisite: ART 165. Spring, annually, and on demand.
- ART 272: PRINTMAKING II** 3 s.h.
Enhances the skills and understanding students have of printmaking as a creative visual tool using relief, intaglio, lithography, and/or monotype processes. Photographic and computer processes may also be included. Prerequisite: ART 171. Each semester.
- ART 282: JEWELRY II** 3 s.h.
Continues study in the design and construction of jewelry pieces. Students continue advancing their skills and knowledge of metals, stones, woods, and other materials. Prerequisite: ART 181. Annually.

- ART 300:** **SPECIAL TOPICS IN ART**
Topics of interest in various areas of art. The instructor selects the format. Offered when faculty are available. **3 s.h.**
- ART 312:** **ITALIAN RENAISSANCE ART** **3 s.h.**
Surveys the art and architecture of the Italian Renaissance from the Italo-Byzantine style to the advent of the Baroque. Prerequisite: None—ART 212 suggested. Alternate Fall Semesters or on demand.
- ART 313:** **NINETEENTH-CENTURY ART** **3 s.h.**
Surveys the art and architecture of Europe and America in the 19th century from Romanticism through Art Nouveau. Prerequisite: None—ART 212 suggested. Alternate Fall Semesters or on demand.
- ART 314:** **TWENTIETH-CENTURY ART** **3 s.h.**
Surveys the art and architecture of Europe and America in the 20th century, its historical and cultural context, and the development of modernism and postmodernism. Spring Semester, biannually, and on demand.
- ART 315:** **ORIENTAL ART** **3 s.h.**
Surveys the art and architecture of the Far East from prehistory to the 20th century. Prerequisite: None—ART 110 suggested. Alternate Spring Semesters or on demand.
- ART 316:** **ITALIAN CINEMA** **3 s.h.**
A survey of Italian film from post-war Neorealism to the present. Includes study of the most important directors and viewing of exemplary films during the period. Attendance at out-of-class screenings required. No prerequisite. On demand.
- ART 323:** **DRAWING III** **3 s.h.**
Encourages integration of individual expressive and conceptual concerns into drawing. Expands media and processes applicable to drawing, including the use of color media. Includes investigation of current as well as historical drawing practices. Offered concurrently with ART 121, 222. Prerequisite: ART 222. Each semester.
- ART 324:** **FIGURE DRAWING III** **3 s.h.**
Integrates the student's expressive concerns with knowledge of the figure. Investigates figures in a historical context and current trends in figure drawing. Continues exploring media. Offered concurrently with ART 122, 223. Prerequisite: ART 223. Spring Semester and on demand.
- ART 333:** **PAINTING III** **3 s.h.**
Individual expression and problem solving take an increasingly important role as the student focuses on a personal aesthetic direction. Encourages experimentation with various mediums and surfaces. Assignments given as needed. Regular critiques. Prerequisite: ART 232. Each semester.
- ART 343:** **SCULPTURE III** **3 s.h.**
Continues and expands directions established in Sculpture II. Prerequisite: ART 242. Each semester.
- ART 347:** **ILLUSTRATION III** **3 s.h.**
Incorporates all previous knowledge acquired in Levels I and II. Encourages students to develop their personal aesthetic and to produce portfolio quality pieces. Offered concurrently with ART 145. Prerequisite: ART 246. Fall Semester, annually, or on demand.
- ART 353:** **CERAMICS III** **3 s.h.**
Students explore the fundamentals of glaze tests, materials tests, eutectics, the calculation of glazes, ceramic kilns, and their design. Students study materials used, and the design of ceramic equipment and its special uses. Concentrates on technical aspects and equipment used in ceramic production. Prerequisite: ART 252. Restricted to art majors/minors or permission of instructor. Each semester.
- ART 357:** **GRAPHIC DESIGN AND COMPUTER III** **3 s.h.**
Incorporates all previous knowledge acquired in Levels I and II, including proficiency in advanced software. Encourages students to develop their personal direction and to produce portfolio quality pieces. Offered concurrently with ART 155. Prerequisite: ART 256. Spring Semester or on demand.
- ART 363:** **WEAVING AND FIBER SCULPTURE III** **3 s.h.**
Advanced study of hand and computerized/mechanized textile construction processes in historical context. Development of portfolio and facility with the language of art. Prerequisite: ART 262. Fall, annually, and on demand.
- ART 367:** **FABRIC SURFACE DESIGN III** **3 s.h.**
Advanced study of hand and computerized/mechanized surface design processes in historical context. Development of portfolio and facility with the language of art. Prerequisite: ART 266. Spring, annually, and on demand.
- ART 373:** **PRINTMAKING III** **3 s.h.**
Advanced problems in color and creative expression utilizing techniques and principles of intaglio, relief, lithography, and monotype. (The student is encouraged to focus on two processes.) May include exploration of photographic and computer applications for printmaking. Prerequisite: ART 272. Each semester.
- ART 383** **JEWELRY III** **3 s.h.**
Continues study of the design and creation of jewelry and metalwork, emphasizing development of an individual aesthetic through the use of multiple techniques and processes. Prerequisite: ART 282. Annually.
- ART 424:** **DRAWING IV** **3 s.h.**
Provides opportunity for students to explore a drawing concern(s) of their own in depth. Offered concurrently with ART 121, 222, 323. Prerequisite: ART 323. Each semester.
- ART 425:** **FIGURE DRAWING IV** **3 s.h.**
Tutorial approach allows students maximum freedom in exploring the figure in their own context. Offered concurrently with ART 122, 223, 324. Prerequisite: ART 324. Spring Semester and on demand.
- ART 426:** **SENIOR DRAWING** **3 s.h.**
Capstone course allows students concentrating in drawing to develop their work for the B.F.A. exhibit. Offered concurrently with other drawing courses. Prerequisites: ART 424 and 425. Each semester.
- ART 434:** **PAINTING IV** **3 s.h.**
Continues investigation of aesthetic concepts and personal direction. Students work toward a portfolio or entrance into a M.F.A. Program. Regular critiques. Prerequisite: ART 333. Each semester.

- ART 435: PAINTING V** 3 s.h.
Continuation of Painting IV. Prerequisite: ART 434. Each semester.
- ART 436: PAINTING VI** 3 s.h.
Continuation of Painting V. Prerequisite: ART 435. Each semester.
- ART 444: SCULPTURE IV** 3 s.h.
Continuation of Sculpture III. Prerequisite: ART 343. Each semester.
- ART 445: SCULPTURE V** 3 s.h.
Continuation of Sculpture IV. Prerequisite: ART 444. Each semester.
- ART 446: SCULPTURE VI** 3 s.h.
Continuation of Sculpture V. Prerequisite: ART 445. Each semester.
- ART 448: ILLUSTRATION IV** 3 s.h.
Encourages students to develop their personal aesthetic and produce portfolio quality pieces. Intermediate-level course emphasizes business aspects of illustration. Offered concurrently with ART 145. Prerequisite: ART 347. Fall Semester, annually, or on demand.
- ART 449: ILLUSTRATION V** 3 s.h.
Students develop a portfolio geared toward their particular skills and interests. Students entering this advanced-level course should have a solid creative and technical background in illustration. Students can seek their own clients at this time so they have printed pieces in their professional portfolios. Offered concurrently with ART 145. Prerequisite: ART 448. Fall Semester, annually, or on demand.
- ART 450: ILLUSTRATION VI** 3 s.h.
Students develop a portfolio geared toward their particular skills and interests. Students entering this advanced-level course should have a solid creative and technical background in illustration. Students can seek their own clients at this time so they have printed pieces in their professional portfolios. Offered concurrently with ART 145. Prerequisite: ART 449. Fall Semester, annually, or on demand.
- ART 454: CERAMICS IV** 3 s.h.
Students work and set goals in their own creative interests for a semester of work. Students who choose hand building or thrown pottery begin work toward a portfolio for a career or entrance into a M.F.A. Program. Prerequisite: ART 353. Restricted to art major/minors or permission of instructor. Each semester.
- ART 455: CERAMICS V** 3 s.h.
Continuation of Ceramics IV. Prerequisite: ART 454. Each semester.
- ART 456: CERAMICS VI** 3 s.h.
Continuation of Ceramics V. Prerequisite: ART 455. Each semester.
- ART 458: GRAPHIC DESIGN AND COMPUTER IV** 3 s.h.
Encourages students to develop personal direction and produce portfolio quality pieces. Intermediate-level course explores software. Offered concurrently with ART 155. Prerequisite: ART 357. Spring Semester, annually, or on demand.
- ART 459: GRAPHIC DESIGN AND COMPUTER V** 3 s.h.
Students develop a portfolio geared toward their particular skills and interests. Students can seek their own clients at this time so they have printed pieces in their professional portfolios. Advanced-level course emphasizes advanced software competency. Students should have a solid creative and technical background in computer graphics and graphic design. Offered concurrently with ART 155. Prerequisite: ART 458. Spring Semester, annually, or on demand.
- ART 460: GRAPHIC DESIGN AND COMPUTER VI** 3 s.h.
Professional portfolios are reviewed at the beginning of the course, and weak projects are replaced with higher quality pieces. Stresses business skills, especially promotional pieces. Students entering this advanced-level course should have a solid creative and technical background in computer graphics and graphic design. Offered concurrently with ART 155. Prerequisite: ART 459. Spring Semester, annually, or on demand.
- ART 464: WEAVING AND FIBER SCULPTURE IV** 3 s.h.
Advanced studio production and study of textile construction history and techniques; continued development of portfolio through regular critiques. Prerequisite: ART 363. Fall, annually, and on demand.
- ART 465: WEAVING AND FIBER SCULPTURE V** 3 s.h.
Preparation for B.F.A. exhibition and continued development of portfolio. Prerequisite: ART 464. Fall, annually, and on demand.
- ART 466: WEAVING AND FIBER SCULPTURE VI** 3 s.h.
Preparation for B.F.A. exhibition and continued development of portfolio. Prerequisite: ART 465. Fall, annually, and on demand.
- ART 468: FABRIC SURFACE DESIGN IV** 3 s.h.
Advanced studio production and study of surface design history and techniques; continued development of portfolio through regular critiques. Prerequisite: ART 367. Spring, annually, and on demand.
- ART 469: FABRIC SURFACE DESIGN V** 3 s.h.
Preparation for B.F.A. exhibition and continued development of portfolio. Prerequisite: ART 468. Spring, annually, and on demand.
- ART 470: FABRIC SURFACE DESIGN VI** 3 s.h.
Preparation for B.F.A. exhibition and continued development of portfolio. Prerequisite: ART 469. Spring, annually, and on demand.
- ART 474: PRINTMAKING IV** 3 s.h.
Emphasizes development of individualized approaches to printmaking relevant to the student's personal aesthetic and conceptual interests. Focuses on lithographic, relief, intaglio, monotype, or photographic print processes. Evidence of refined technical skills is expected. Prerequisite: ART 373. Each semester.
- ART 475: PRINTMAKING V** 3 s.h.
Continuation of Printmaking IV. Emphasizes development of a cohesive portfolio. Prerequisite: ART 474. Each semester.
- ART 476: PRINTMAKING VI** 3 s.h.
Continuation of Printmaking V. Focuses on preparation of the B.F.A. exhibition. Prerequisite: ART 475. Each semester.

Biology

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Professors: Barnes, Belzer, Dalby, Eggleton, Harris, McPherson, Morrow, D. Smith, Williams; **Associate Professor:** A. Turner; **Assistant Professors:** Jetkiewicz, Keth, Lott

The Department of Biology offers students several degree options depending on interest and long-term career goals. The Bachelor of Arts degrees in both biology and natural sciences require the student to complete a competency in foreign language or computer science. Four Bachelor of Science degrees are offered: biology, environmental biology, medical technology, and molecular biology/biotechnology. The major requirements for all of these degrees are similar in the first two years, allowing students to switch between degree options and to readjust career objectives. All of these 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 offers a variety of programs in the health careers including pre-medical, pre-veterinary, and pre-dental. The necessary training to pursue other careers in the health sciences is also available through the Pre-Professional Program. Those students interested in marine science can enroll in environmental biology, with a specialization in marine ecology. Students more interested in ecology may choose the ecology and evolutionary biology concentration within the biology B.S. degree, or they may choose from concentrations in terrestrial ecology or freshwater ecology within the environmental biology degree. Four minors, two in biology, with options in either cellular/organismal biology or ecology/evolutionary biology, one in biotechnology and another in environment and society, 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.A. 40-53 credits

Required: BIOL 155/165, 156/166, 201, 202, 203, 382, and 9 to 12 credits from approved biology electives. In addition to these 29 credits in biology, the following supplemental

courses are required: MATH 171, and 221 or 222; CHEM 153, 163, 154, 164, 254, 264; PH 251 and 252. CHEM 453/463 is an acceptable elective. Applicants for the B.A. degree must complete either a foreign language or computer science competency.

BIOLOGY, B.S. 50-65 credits

Required: BIOL 155/165, 156/166, 201, 202, 203, 382, and 12 to 16 credits from approved biology electives. In addition to these 32 to 37 credits in biology, the following supplemental courses are required: MATH 221 or 222, and 260 or 270; CHEM 153, 163, 154, 164, 251, 252, 261, 262 and one additional chemistry elective, excluding CHEM 205 and 211; PH 251 and 252. Students have the option to elect, after consultation with their advisor, either chemistry sequence 1 which includes CHEM 251, 261, 252, 262, plus one CHEM elective of three or four credits or chemistry sequence 2 which includes CHEM 254, 264, 351, 361, 453, and 463.

ENVIRONMENTAL BIOLOGY, B.S. 64-77 credits

Required: BIOL 155/165, 156/166, 201 or 341, 202, 405, 493 or 494. A 3-credit field experience competency is required, which can be fulfilled by completing one of the following: ANTH 375, BIOL 410 or 499, COOP 308/408, or ES 455. Also required are 12 credits of electives including at least 3 credits from each of the following categories: Freshwater Ecology: BIOL 341, 382, 400, 402, 424, 425, 451, 456, 473, 492, 493, 494, 497, 499, COOP 308/408, ES 400, 425, 470; Terrestrial Ecology: BIOL 341, 353, 382, 400, 402, 427, 451, 456, 470, 471, 492, 493, 494, 499, COOP 308/408, ES 400, 425, 470; Marine Ecology: MARS 300, 301, 302, 303, 320, 400, 401, 402, 403, 404, 405, 406, 407, 408, 420, 425, 430, ES 270, 400, 425, 470. Concentrations are also available for Freshwater Ecology, Marine Ecology, or Terrestrial Ecology. In addition to these 65-68 credits in environmental biology, the following supplemental courses are required: MATH 171 (or higher), 221 or 222, ES 150, 260, 280 or 320 or 330, 400 or 470, CHEM 153/154, 163/164, 254/ 264, and 351/361.

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

Required: BIOL 155/165, 156/166, 201, 203, 341, 450, 481, 483, 485, 495, 496, and six credits from approved biology electives. In addition to these 41 to 43 credits in biology, the following supplemental courses are required: MATH 221 or 222, and 260 or 270, CHEM 153, 163, 154, 164, 251, 261, 252, 262, 453, 463, PH 251 and 252.

MEDICAL TECHNOLOGY, B.S. 75 credits

The Medical Technology Program includes an academic preparation of three years (96 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, standards for admission are high, 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, and 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, 341, 444; CHEM 153, 163, 154, 164, 254, 264, 351, 361; either BIOL 203 or CHEM 453; PH 251, 252; 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 grade-point averages: 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.; Susquehanna Health Systems, 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.

NATURAL SCIENCES, B.A. 55-57 credits
An interdisciplinary degree program administered through the Department of Biology and intended to give students a broad perspective on the sciences.

Required: MATH 270, 271; PH 251 or 258/268, PH 252 or 259/269; CHEM 153/163, 154/164 or CHEM 151/161, 152/162; BIOL 155/156, 165/166; ES 150, 250. In addition to these 44-46 credits, the student must take five courses totaling not less than 15 credits; three of these courses must be in one science (excluding mathematics) and the other two in a different science or in mathematics. All five must be from approved electives. Applicants for the B.A. degree must complete either a foreign language or computer science competency.

ECOLOGY AND EVOLUTIONARY BIOLOGY, CONCENTRATION WITHIN THE B.S. BIOLOGY 64 -77 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, 494 and 12 credits from approved biology electives. In addition, the following courses are required: CHEM 153/154, 163/164, CHEM 251/261, 252/262, and one additional chemistry elective MATH 221 or 222, and 260 or 270, PH 251 and 252, and nine credits of electives in the sciences.

BIOLOGY MINOR, CELLULAR/ORGANISMAL

BIOLOGY TRACK 19-22 credits
This minor is designed to provide students, in majors other than biology, a basic knowledge of the fundamentals of cellular and molecular biology. Students are provided with complementary experiences and skills which, when combined with other majors, enhances both career opportunities and potential for further education.

Required: BIOL 155/165, 201, 203, and 9-12 credits from the following: BIOL 341, 382, 444, 446, 450, 451, 455, 460, 461, 464, 483, and 485.

BIOLOGY MINOR, ECOLOGY/EVOLUTIONARY

BIOLOGY TRACK 18-20 credits
This minor is designed to provide students, in majors other than biology, a basic knowledge of the fundamentals of ecology and natural history. Students are provided with complementary experiences and skills which, when combined

with other majors, enhances both career opportunities and potential for further education.

Required: BIOL 156/166, 202, and 11-12 credits from the following: BIOL 382, 402, 424, 425, 428, 432, 456 471, 473, 492 493, 494, or 495.

BIOTECHNOLOGY MINOR 18-19 credits
The minor in biotechnology serves to provide students in chemistry, physics, pre-engineering, mathematics, computer science, business management, finance, and marketing with a working knowledge of biotechnology. The minor provides these students with the cross-disciplinary experience to apply the expertise from the majors in the emerging fields of science and commercial technology.

Required: BIOL 155/165, 201, 341, 483, and 3-4 credits from the following: BIOL 444, 450, 464, 481, 485, or CHEM 453.

ENVIRONMENT AND SOCIETY MINOR 18 credits
This interdisciplinary minor, administered through the Biology Department, is designed to allow science and non-science students the opportunity to study multifaceted environmental concerns in a context of ethical, legal, social, cultural, and political factors, and participate in environmental policy making.

Required: BIOL 275, ECON 202, PHIL 212, and three additional course at the 300- or 400-level must be selected from the following: BSAD 340, CHEM 211/GS 411, ED 403, GEOG 300, SOC 351, 370, or SCED/ED/BIOL 476.

Center for Natural Resources and the Environment

Housed in the Department of Biology, the Center for Natural Resources and the Environment serves as a focal point for regional environmental studies, coordinates environmental outreach activities, and promotes partnerships with various public and private agencies interested in the environment. The center is a nucleus for research and education on environmental resource science and stewardship focused on the land, air, and water resources of the Allegheny Plateau ecoregion of western Pennsylvania.

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 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 Crooked Creek Environmental Learning Center, a consortium of universities, colleges, school districts, and state, federal, and private environmental agencies and organizations interested in environmental education. The Environmental Learning Center is located at Crooked Creek Lake, in Ford City near Kittanning.

Marine Science Consortium at Wallops Island, Va.

Environmental Biology majors have the opportunity to specialize in Marine Ecology. These students, as well as students in other biology programs, may register through Clarion University for classes taught through the Marine

Science Consortium at Wallops Island, Va. The consortium is comprised of 16 colleges and universities, and offers students a wide array of field-oriented courses in marine biology. The college courses and educational programs offered are field and inquiry based and offer participants the opportunity to learn by living and working in a pristine coastal environment. Summer sessions at Wallops Island are three weeks in length.

The objectives of the consortium are to maintain the Wallops Island marine field station, promote and encourage learning and research in the marine and environmental sciences, and promote activities that will create a greater understanding of the marine and environmental sciences. The main campus, Wallops Island Marine Science Center, consists of over 57 acres containing classrooms, wet and dry laboratories, computer laboratory, residence buildings, faculty and staff residences, cafeteria, library, recreational facilities, and an administrative building. The smaller campus, Marine Science Consortium Research Center, is located on Chincoteague Bay at Greenbackville, Va. This campus is largely devoted to research and contains a flow-through seawater system, wet and dry laboratories, and residence buildings.

PRE-PROFESSIONAL STUDIES IN THE 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, and pre-veterinary. Qualified biology majors interested in a career in medicine have a unique opportunity to complete their senior year of college, while beginning their medical training through a “3+4” affiliation agreement with Lake Erie College of Osteopathic Medicine (LECOM) in Erie, Pa. For more details on these programs, see page 118.

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. Courses are taught by faculty from a number of cooperating institutions. Sessions at Pymatuning are open to undergraduate and graduate students. Sessions at Pymatuning are three weeks in length, and students normally reside on site.

The Pymatuning Laboratory of Ecology (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 about 1 1/2 hours northwest of Clarion within Pymatuning State Park and on the shores of Pymatuning Reservoir. The laboratory site 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. In addition, a number of visiting investigators conduct summer research at PLE, creating a highly charged and interactive intellectual atmosphere.

SECONDARY EDUCATION – BIOLOGY/GENERAL SCIENCE

The Biology Department offers in conjunction with the Education Department a program in Secondary Education – Biology. (see page 158 for more details). Also available is a multidisciplinary secondary education degree in General Science (see page 159 for details). A Teaching Certificate in Environmental Education Grades K-12. is also available.

Biology Courses

BIOL 111: BASIC BIOLOGY

4 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 115: INTRODUCTORY BIOLOGY

4 s.h.

A basic course in biology for non-science majors. Includes cellular structure and function, molecular biology, genetics, survey of organisms, evolution, and ecology. Divided into two hours of lecture and a two-hour instruction/laboratory/discussion/recitation session weekly. Credit not to be applied toward the biology major. Each semester.

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. Students 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. Students 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.
- 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 and two laboratory hours weekly. Prerequisites: Completion of two semesters of introductory biology and one semester of organic chemistry or permission of instructor. 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: Completion of two semesters of introductory biology or permission of instructor. Fall, 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 two semesters of introductory biology or permission of instructor. Each semester.
- 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. Prerequisite: One semester of biology is recommended, or permission of instructor. Annually.
- BIOL 224: HUMAN BIOLOGY** **3 s.h.**
 Conveys the complexity and function of the human organism. Includes an exploration of how humans impact and are impacted by the natural world, and considers how the variety of new findings in scientific research can affect individual lives as well as public policy. Credit not to be applied toward a biology major or biology education certification. Prerequisite: One semester of biology is recommended, or permission of instructor. Annually.
- 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 257: BIOLOGY OF AGING** **3 s.h.**
 Examines current views of animal aging, referencing to the causes and effects of aging in human organ systems. Does not count toward major requirements for any Biology Department major. Three discussion periods weekly. Prerequisite: One semester of biology or permission of instructor. On demand.
- 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. Pittsburgh Campus, 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: BIOL 155, 156, 165, 166. Alternate years.
- 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: A course in cell biology and one semester of organic chemistry or permission of instructor. 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 writing intensive and second value flags of the university general education requirements. Three lecture hours weekly. Prerequisite: Completion of two semesters of introductory biology or permission of instructor. Alternate years.

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 402/502: BIOMETRY**3 s.h.**

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. Prerequisite: Any elementary statistics course or permission of instructor. Spring, alternate years.

BIOL 405/505: 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, alternate years.

BIOL 424: FRESHWATER ICHTHYOLOGY**3 s.h.**

A study of the classification, evolutionary relationships, distribution, morphology, ethology, ecology, and physiology of fish. Lab exercises stress the identification of families and species of fish from the Eastern United States, emphasizing Pennsylvania forms. Requires Pennsylvania fishing license. Two lecture and three lab hours weekly. Prerequisite: Completion of a course in principles of ecology 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 PA fishing license required. Alternate years.

BIOL 427/527: PLANT TAXONOMY AND 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. Prerequisite: Completion of a course in principles of ecology or permission of instructor. Fall, odd-numbered years.

BIOL 428/528: 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. Spring, even-numbered years.

BIOL 432/532: 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. Prerequisite: BIOL 155/165 and BIOL 156/166 or permission of the instructor. Spring, even-numbered years.

BIOL 443: VIROLOGY**3 s.h.**

Study of plant, animal, and bacterial viruses, emphasizing biochemistry, structure, life cycles, and disease-causing mechanisms. Three lectures per week. Prerequisites: Biochemistry, general microbiology, or permission of instructor. On demand.

BIOL 444: IMMUNOLOGY**4 s.h.**

Examines cellular immunology, immunochemistry, and immunogenetics, emphasizing the physiology of immune responses. Three hours lecture and three hours lab per week. Prerequisite: General microbiology or permission of instructor. 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.**

Explores the molecular dynamics of eukaryotic cells. Includes functional and structural organization of the cell, the cell as a unit of inheritance, and the cell as a biochemical transducer. Two lecture sessions and four laboratory hours per week. Prerequisites: Cell biology and one semester of organic chemistry or permission of instructor. Alternate years.

- 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. Annually.
- BIOL 452: PLANT PHYSIOLOGY** 3 s.h.
 Life processes and responses of plants to the environment. Includes water relations, transpiration, translocation, photosynthesis, respiration, metabolism, plant hormones and morphogenesis, photoperiodism, temperature responses, environmental and stress physiology. Two lectures and three hours laboratory weekly. Prerequisites: Completion of a course in genetics, cell biology, and one semester of organic chemistry or permission of instructor. On demand.
- 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 454: PATHOPHYSIOLOGY: EXOGENOUS AGENTS** 4 s.h.
 Study of mechanisms by which disease occurs in humans. Emphasizes disease related to heredity, physical, chemical, and biological stresses. Prerequisite: Three semesters of biology required or permission of instructor. Venango Campus, annually. Not for biology majors.
- BIOL 455: ENDOCRINOLOGY** 3 s.h.
 Surveys the chemical and physiological principles of hormonal integrations in animals. Three hours lecture weekly. Prerequisites: Completion of a course in physiology and one semester of organic chemistry or permission of instructor. Annually.
- 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 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 two semesters of introductory biology or permission of instructor. Alternate years.
- BIOL 461: VERTEBRATE EMBRYOLOGY** 3 s.h.
 Descriptive study of the development of vertebrates, including early processes and the formation of organ systems. Two lecture and three laboratory hours weekly. Prerequisite: Completion of two semesters of introductory biology or permission of instructor. Alternate years.
- BIOL 464: DEVELOPMENTAL BIOLOGY** 3 s.h.
 Study of the major processes in development and their underlying mechanisms. Includes descriptive study and mechanisms such as differentiation, induction, and morphogenesis. Deals primarily with animal development. Two lecture and three laboratory hours weekly. Prerequisites: Completion of two semesters of introductory biology, genetics, and two semesters of general chemistry or permission of instructor. Annually.
- BIOL 470: ANIMAL ECOLOGY** 3 s.h.
 Deals with the interrelationships of animals and their environment, including physical and biological factors. Includes discussions and investigations of animal distribution, predator-prey interactions, competition, species diversity, energetics, population, and community organization. Includes field and laboratory studies. Prerequisite: A course in principles of ecology or permission of instructor. On demand.
- 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. Prerequisite: A course in principles of 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/ES 476/ SCED 576 SCIENCE, TECHNOLOGY, AND SOCIETY: TOPICS FOR TEACHERS** 3 s.h.
 Interdisciplinary course covering topics in biology, earth science, chemistry, and physics designed to acquaint students with information, curricula, and teaching methodologies appropriate for teaching STS topics in traditional science courses. Students will be involved in studies and hands-on activities concerning science computer software, testing water for chemical and biological agents, and remote sensing techniques in geology, geography, physics, and medicine. Investigates and discusses ethical issues and scientific principles concerning computers, energy, nuclear waste, biotechnology, and others. Participants develop curriculum activities for implementation in their science discipline. Required for environmental education, general science, and earth science certification. Prerequisite: Junior standing. Annually.
- BIOL 478: BIOME STUDIES** 3 s.h.
 A travel-study program which offers opportunities for study in the various biomes, e.g., grasslands, montane, seashore, etc. On demand.

- BIOL 481: MICROBIAL GENETICS** **3 s.h.**
 A study of bacterial and viral genetics emphasizing mutation, mutant selection, gene action, recombination genetic mapping, and gene regulation. Laboratory sessions are on an arranged basis. Prerequisite: Genetics and general microbiology or permission of instructor. Alternate years.
- 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: Completion of a course in cell biology, genetics, and four semesters of chemistry or permission of instructor. Annually.
- BIOL 485: BIOTECHNOLOGY** **4 s.h.**
 Advanced topics in the current systems, methods, and applications of nucleic acid and protein biotechnology. Two lecture and four laboratory hours weekly. Prerequisite: Completion of a course in molecular biology or permission of instructor. Annually.
- BIOL 491: BIOGEOGRAPHY** **3 s.h.**
 The subject matter will cover aspects of the distribution of plants and animals. Main topics of concern will include interpretive approaches to biogeography, paleobiogeographic evidence of past distributions, the centers of origin of various groups, mechanics and routes of dispersal and colonization, and the dynamics of extinction. Prerequisites: A course in genetics and principles of ecology or permission of instructor. On demand.
- 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. Laboratory exercises involve techniques of observation and experiments in animal behavior. Two lecture and three hours laboratory or field work weekly. Prerequisites: Completion of courses in principles of ecology and genetics or permission of instructor. 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 principles of ecology, basic statistics highly desirable, or permission of instructor. Fall, 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. Three hours lecture/discussion and three laboratory hours weekly. Prerequisites: Completion of a course in principles of ecology and applied calculus or permission of instructor. Alternate years.
- BIOL 495: UNDERGRADUATE SEMINAR I** **1 s.h.**
 Acquaints students with latest developments in their field, to enable them to practice the critical thinking skills and communication skills required of professional scientists. Juniors critique each seminar for content, analysis, and presentation, and demonstrate comprehension of the material presented each week. Prerequisite: Junior standing as an undergraduate major in the Biology Department or permission of the instructor. Required for Molecular Biology/Biotechnology majors. Spring, annually.
- BIOL 496: UNDERGRADUATE SEMINAR II** **1 s.h.**
 Acquaints students with latest developments in their field. Enables students to practice critical-thinking and communication skills required of professional scientists. Seniors present one or two short seminars during the semester based on recent literature of their field. Prerequisite: Senior standing as an undergraduate major in the Biology Department or permission of the instructor. Required of Molecular Biology/Biotechnology majors. Spring, annually.
- BIOL 497: EVOLUTIONARY ECOLOGY** **3 s.h.**
 Explores contemporary topics and landmark contributions in ecology and evolutionary biology through readings of ecology, evolution, and review papers. Three hours lecture/discussion weekly. Prerequisites: Completion of a course in principles of ecology, evolution, and genetics, or permission of instructor. Spring, alternate years.
- 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. The course is presently linked to ecological economics for those students enrolled in the transdisciplinary environment and society minor. Two lectures and three laboratory hours weekly. Prerequisite: One semester of biology, chemistry, or earth science. Spring, 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. Spring, annually.

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. Spring, 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/BIOLOG 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.

Marine Science Courses**MARS 300: BEHAVIOR OF MARINE ORGANISMS 3 s.h.**

Concepts of ethology; discussion and observation of the influences of external and internal factors on the regulation and control of behavior of organisms living in the marine coastal environment. Each summer.

MARS 301: MARINE INVERTEBRATES 3 s.h.

This course is designed to utilize the marine invertebrate taxa to introduce students to the unique specializations which animals have evolved which allow them to successfully carry out the processes necessary for life and to exploit a wide variety of marine habitats. Major trends in invertebrate evolution will be used to illustrate the historical constraints upon these solutions and the necessity of narrative explanations of form and function in animals. It is assumed that each student has been introduced to the major taxa of animals in a prior introductory zoology course. Taxonomy will be used as a heuristic tool, but will not be stressed as an ends itself. Each summer.

MARS 302: BIOLOGICAL OCEANOGRAPHY 3 s.h.

Interdisciplinary study of the interactions between biological communities and the ocean environment as seen by distributions of coastal plankton, fish, and benthic invertebrates. Projects will involve boat trips to sample populations and to quantitatively document environmental variables with state-of-the-art equipment, laboratory and field experiments to determine rate processes, and visits to nearby field and government laboratories. Examples of project topics include transport of plankton at barrier island passes, effect of submarine banks on fish populations, ground truth data for satellite imagery, and other current topics in biological oceanography. Each summer.

MARS 303: BIOLOGY OF MOLLUSKS 3 s.h.

The Mollusca is the second largest group of animals and perhaps the most diverse in terms of morphological, ecological, and behavioral variations. This course offers an evolutionary, functional, and ecologic approach to studying this important group of organisms. Each summer.

MARS 320: MARINE GEOLOGY 3 s.h.

Sedimentary and tectonic characteristics of the continental margins and deep ocean basins; sediment transport and deposition in marine environments; marine geophysical methods at sea; marine mineral resources. Each summer.

MARS 400: COMPARATIVE PHYSIOLOGY OF MARINE ORGANISMS 3 s.h.

This course will provide an introduction to the physiology of marine organisms. The lecture will introduce the topics of respiration, circulation, metabolism, osmoregulation, thermoregulation, locomotion, and sensory systems by drawing comparisons between the mechanisms and strategies utilized by a wide range of marine organisms. Laboratory and field work will focus on the physiological responses of marine plants and animals to common environmental stresses such as salt load, temperature variation, depletion of dissolved oxygen, and tidal flux. This will be accomplished through measurements and observations in the field, as well as through experimental manipulations in a laboratory setting. Each summer.

MARS 401: ADVANCED METHODS IN COASTAL ECOLOGY 3 s.h.

An introduction to the wide array of methods of data collection, study designs, and analyses used in ecology. Emphasis is placed on understanding the strengths and weaknesses of different ecological methods and analyses in the study of coastal environments. Lecture, field work, and laboratory are integrated, and students gain practical computer experience by analyzing ecological data from the field using software that performs analyses introduced in lecture. Each summer.

- MARS 402: CORAL REEF ECOLOGY** **3 s.h.**
 A study of coral reef structure, formation, types, and the relationships of reef organisms to their environment. Emphasis is given to species diversity, identification, symbioses, and effects of temperature, salinity, light, nutrient concentration, predation, and competition on the abundance and the distribution of coral reef organisms. Each summer.
- MARS 403: RESEARCH DIVER METHODS** **3 s.h.**
 Study and practice of aquatic research methods using SCUBA as a tool. Advanced research diving topics include areas such as navigation, search and recovery, underwater photography, survey methods, estimating population parameters, and data acquisition while under water. Specific research techniques will be presented in the context of specific aquatic research project conducted by students under the direction of the instructor. Each summer.
- MARS 404: MARINE AQUACULTURE** **3 s.h.**
 This course will include the theory and the practice of raising organisms for food and for the aquarium trade. Techniques of raising economically important organisms from the egg stage to marketable size and their food supplies will be studied. Each summer.
- MARS 405: COASTAL ENVIRONMENTAL OCEANOGRAPHY** **3 s.h.**
 This course examines the interaction of biological, chemical, physical, geological, and ecological ocean processes as applied to coastal environments. Emphasis is on environmental management issues of the coastal tidal zone. Topics include water quality analysis, barrier island geology and ecology, estuarine pollution, beach defense and biological implications in areas of coastal up-welling and coastal fronts. Each summer.
- MARS 406: BEHAVIORAL ECOLOGY** **3 s.h.**
 This course is designed to present animal behavior within an ecological and evolutionary context. Presents mathematical and theoretical framework of behavioral ecology. An in-depth exploration of the ways in which the behavior of animals is influenced by the environment, especially with regard to resource distribution. Each summer.
- MARS 407: MARINE MAMMALS** **3 s.h.**
 A study of the distribution, population ecology, behavior, physiology and adaptation of marine mammals. Student projects will entail collecting physiological and behavioral data at field sites and at facilities studying marine mammals. Each summer.
- MARS 408: MARINE EVOLUTIONARY ECOLOGY** **3 s.h.**
 The study of the ecological mechanisms underlying evolutionary processes. This course is broad in scope and requires that students synthesize both evolutionary and ecological concepts and theory into and understanding of how organisms adapt to their environment. Marine, estuarine, and maritime organisms will be used as model systems, and processes which affect marine populations will be emphasized. Each summer.
- MARS 420: FIELD METHODS IN OCEANOGRAPHY** **3 s.h.**
 Work on board small research vessels in the dynamic marine environment; use and application of standard oceanographic instruments and sampling devices; opportunities for independent research. Each summer.
- MARS 425/525: SPECIAL TOPICS IN MARINE SCIENCE** **3 s.h.**
 Topics of special interest in various areas of marine science. The format and topic will be selected and designed by the instructor. Each summer.
- MARS 430: COASTAL GEOMORPHOLOGY** **3 s.h.**
 Presents the origins and dynamics of coastal landforms as constructed by erosional, depositional, and sediment transport processes. Structure, process and time are examined within the framework of wave and current energetics which define coastal landforms. Field and laboratory investigations are emphasized. Each summer.

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.

Chemistry

Department of Chemistry, William Krugh, Ph.D., chair

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Professors: Beck, Bering, Brent, Keen, Krugh, McElhattan, Sharpe; **Assistant Professor:** Overly

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. or a B.A. 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 placement 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 produces an environment that encourages both intellectual growth and academic achievement.

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.

CHEMISTRY, B.A. 65 credits

Required: CHEM 151, 161, 152, 162, 251, 261, 252, 257, 262, 270, 271, 353, 354, 355, 358, 363, 364, 365, 368, 456, and 470. In addition to these 44 credits of chemistry, the following courses are required: MATH 270, 271, 272; PH 251 or 258, and 252 or 259.

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. German is the recommended foreign language.

CHEMISTRY, B.S. 77 credits

Required: CHEM 151, 161, 152, 162, 251, 261, 252, 257, 262, 270, 271, 353, 354, 355, 358, 363, 364, 365, 368, 456, and 470. In addition to these 44 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 .. 74 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.

CHEMISTRY MINOR 74 credits

Required: CHEM 251, 252, 261, 262, 353, 354, 363, 364, and three to five credits from either CHEM 355, 365; CHEM 358, 368; CHEM 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.

- 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, oxidation-reduction, and radioactivity. 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 free radical substitution, nucleophilic substitution, electrophilic addition and electrophilic aromatic substitution. 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 spectrometry, 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 the effective use of chemical information. Discusses aspects of both printed and computer-based chemical 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, solid state, and descriptive main group inorganic chemistry. Laboratory focuses on the properties and reaction chemistry of the elements and inorganic compounds. Prerequisite: CHEM 152/162. Fall, 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 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 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 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* **4 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. Four hours lecture. Fall, annually.
- CHEM 355:** *PHYSICAL CHEMISTRY II* **4 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. Discusses powder and single-crystal X-ray diffraction techniques and investigates their use as research tools. Prerequisite: CHEM 354. Four hour 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 correlation of structure and reactivity and on stereochemistry. Prerequisites: CHEM 252 and 354 (may be taken concurrently). Fall, alternate years.
- CHEM 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.
- 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. Spring, 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 Chem. 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.

CHEM 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 CHEM 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. Spring, 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 4I/**CHEM 211: SCIENCE AND SOCIETY****3 s.h.**

See cross-listing under CHEM 21.

Physical Science Course**PHSC 11: 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; brief experiments are often included. 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, Joanne Washington, Ph.D., chair**

130 Becker Hall

Telephone: 393-2245

E-mail address: jwashington@clarion.eduWebsite: <http://comdept.clarion.edu/comdept>

Professors: Barlow, Siddiqui; **Associate Professors:** Hilton, S. Kuehn, Washington; **Assistant Professor:** P. Kennedy

Students of communication study mass media theory, design and production to prepare them for careers in television and radio, public relations, advertising, journalism and publishing. The program is broad-based and interdisciplinary, allowing students to explore a variety of career options in the mass media industry. The impact of digital media makes communication an exciting and rapidly expanding career field. The program also provides an excellent base for graduate study in communication, mass media and other fields.

The Department of Communication at Clarion University offers a program that takes students progressively through basic writing and design to high-end production capabilities in broadcasting, print, multimedia

and web-based technologies. Our highly qualified faculty are devoted to teaching, and we work closely with students in cutting-edge production facilities, including digital video and multimedia studios. Extensive opportunities for hands-on experience give students the chance to apply mass media theory and classroom instruction. Required courses in mass media research and law, along with an emphasis on media writing, provide students with strong skills that can be used in a variety of mass media fields. Our diverse faculty maintains industry contacts while participating actively in academic and research activities. An extensive internship program allows students the chance to apply their skills in a controlled environment under the direction of a professional. Graduates have found employment in every aspect of mass communication: major broadcasting markets; newspapers; advertising and public relations; and print and web design and publishing.

COMMUNICATION, B.S. 63 credits

Required: Communication courses – 45 credits; Computer Information Science – 3 credits; Economics – 3 credits; English – 3 credits; Management – 3 credits; Speech Communication and Theater – 6 credits. Communication majors must attain the minimum grade requirement of “C” or better in 300-400 level communication courses.

Communication Courses

- COMM 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 professionals. Each semester.
- COMM 101: MESSAGE DESIGN** 3 s.h.
Investigates elements of effective communication, including the dimensions of sensory perception, meaning, environment, attitude, and technology. Requires students to apply theoretical concepts to practical problems. Each semester.
- COMM 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. Each semester.
- COMM 170: INTRODUCTION TO IMAGES** 3 s.h.
Develops an awareness of the perceptual cues in the environment with the goal of enabling the student to use this awareness in the design of graphics, films, and electronic and digital images. Introduces the production process. Each semester.
- COMM 231: 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.
- COMM 239: 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. Prerequisite: Junior standing.
- COMM 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. Prerequisites: COMM 101, 140, and 170. Every semester.
- COMM 271: 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. Prerequisites: COMM 101, 140, and 170.
- NOTE: Communication majors must attain the minimum grade requirement of "C" or better in 300-400 level communication courses.**
- COMM 31: 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.
- COMM 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, ethics, and process of public relations in business, institutions, and American society through readings and discussion. Note: Undergraduate students completing COMM 312 may enroll in COMM 551.
- COMM 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: COMM 100. Annually.
- COMM 314: MEDIA ADVERTISING PRINCIPLES AND PRACTICES** 3 s.h.
Introduces students to media strategies, creative development, and budgeting of advertising plans for international/national, regional, major-market media, and local media. Includes a review of basic concepts and ethics in advertising. No prerequisite. Spring, even years.
- COMM 320: MASS 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: COMM 100 and 101.
- COMM 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: COMM 100. On demand.

COMM 340: NEWSWRITING 3 s.h.

Explores the principles and practice of evaluating, gathering, and writing the fundamental news story and news feature. Includes preparation of copy for publication, interviewing, and laboratory experience. No prerequisites. Fall, annually.

COMM 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: COMM 271. Fall, annually.

COMM 351: VIDEO 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. Camera required. See specifications above in Department of Communication section. Prerequisite: COMM 270.

COMM 361: MEDIA PRODUCTION PLANNING 3 s.h.

Covers planning for productions in mediums such as television, Web design, and multimedia. Includes preparing budgets and timetables, establishing workteams, and meeting client expectations. Students develop preliminary production design for actual prospective clients. Prerequisite: COMM 270. Each semester.

COMM 375: PHOTOGRAPHY 3 s.h.

Provides basic principles of photography and intermediate principles of photojournalism. Study of camera and darkroom techniques; the production of photographs for news, advertising, scientific, and instructional use. Camera required. See specifications above in Department of Communication section.

COMM 422: MASS MEDIA 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 regulations. Prerequisites: COMM 100 and 101. Each semester.

COMM 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: COMM 320 or permission of instructor.

COMM 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: COMM 140 and 170. Spring, annually.

COMM 442: NEWS WRITING 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. Prerequisites: COMM 100, 101, and 140. Spring, annually.

COMM 443: PROMOTIONAL WRITING 3 s.h.

Provides students with advanced instruction and experience in public relations and advertising writing. Prerequisites: COMM 100, 101, and 140. Spring, annually.

COMM 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: COMM 271 or permission of instructor. On demand.

COMM 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: COMM 351 or other television production experience and permission of the instructor.

COMM 470: VISUAL LITERACY 3 s.h.

Examines the theoretical basis for encoding and decoding visual statements, both temporal and spatial. Analyzes the technology that has expanded and enhanced the powers and pervasiveness of visual communication. No prerequisite. Fall, annually.

COMM 471: INTERACTIVE MULTIMEDIA PRODUCTION 3 s.h.

Offers students the communication design and media development and production skills to produce material in interactive multimedia form. Covers design, analysis, and media production resulting in the production of an interactive multimedia computer program for a client. Prerequisite: COMM 101 or 140. Fall, annually.

COMM 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: COMM 444. On demand.

COMM 475: PRESENTATION GRAPHICS

3 s.h.

Design and production of graphic materials for the presentation of information in training sessions, sales and stockholder meetings, and other small and large group situations. May be taken concurrently with SCT 214.

COMM 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: COMM 320, 80 credits completed, and a minimum of 2.5 QPA.

COMM 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.

COMM 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,
Susan Traynor, M.A., M.B.A., chair

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Professor: Madison; **Associate Professors:** Agyei-Mensah, O'Donnell, R. Smaby, S. Traynor; **Assistant Professors:** Adelson, Barrett, Childs, Kahle, Wyatt

Welcome to the eye of the hurricane! In a world going through dramatic change, the field of computer and information science stands (CIS) 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 logic and mathematics and an evolving engineering discipline to shape this new world being built.

At Clarion, we have people 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++, COBOL, Visual Basic, 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.** 59 credits
Required: CIS 163, 244, 253, 254, 309, 350, 355, 356, 375, 411, 460; MATH 270, 271, 300, 340, and credits of CIS electives in courses 300-level or above.
- INFORMATION SYSTEMS, B.S.** 66 credits
Required: CIS 120, 217, 223, 300, 301, 317, 324, 402, 403, 411; MATH 131, 221, 222, 232; ECON 211, 212; ACTG 251, 252; FIN 370, MGMT 320, MKTG 360, and 9 credits of CIS electives in courses 300-level or above.
- COMPUTER SCIENCE, B.S., MINOR** 18 credits
Required: CIS 163, 244, 254, and 9 credits of CIS electives in courses 300-level or above.
- INFORMATION SYSTEMS, MINOR** 18 credits
Required: CIS 110, 217, 223, 301 and 6 credits of CIS electives in courses 300-level or above.

Computer Information Science Courses

- CIS 10:** **INTRODUCTION TO COMPUTER INFORMATION SYSTEMS** **3 s.h.**
 Surveys the needs for, and roles of, computer information systems in contemporary society. Designed as a first course for the non-computer major 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. Utilizes the BASIC language and time sharing facilities of the university’s Alpha computer system for introductory-level programming. Should not be taken by any IS major, and will not count toward graduation for any student who has also taken CIS 120.
- CIS 120:** **INTRODUCTION TO COMPUTERS FOR IS MAJORS** **3 s.h.**
 First course for IS majors; to be taken during the first semester of freshman year. Introduces tools, techniques, and processes utilized by computer professionals in developing and utilizing applied computer information systems. Emphasizes logic and communication skills utilized in the field and on the development of elementary programming proficiency. Open to IS majors only and will not count toward graduation for any student that has taken CIS 110.
- CIS 163:** **INTRODUCTION TO PROGRAMMING AND ALGORITHMS I** **3 s.h.**
 Addresses the broad issues of computer science as well as introductory programming. Emphasizes fundamental interaction at the operating system (PC and mainframe) and relevant application (program development tools) level. Introduces programming as a critical component within the framework of computer science. Includes architecture, operating systems, and software engineering.
- CIS 217:** **APPLICATIONS OF MICROCOMPUTERS** **3 s.h.**
 Introduces the basic concepts of microcomputers and software applications. Includes microcomputer hardware, commonly available software packages, graphics, and programming. No prerequisite.
- CIS 223:** **COMPUTER PROGRAMMING COBOL** **3 s.h.**
 First programming course for the IS major (but not for the CS major). Emphasizes structured programming concepts and the COBOL language. Programs written in the course emphasize commercial, industrial, and governmental applications. Prerequisite: CIS 110, 120, or 163.
- CIS 226:** **COMPUTER SYSTEMS DEVELOPMENT WITH HIGH-LEVEL TOOLS** **3 s.h.**
 A study of the process of developing a computer-based solution to an information management problem. Examines methods of system analysis and design, emphasizing practical solutions to real problems. Focuses on existing, available systems development tools for both large computers and micro-computers. Uses “fourth-generation” tools to develop an underlying data base and generate programs to implement a business application. Offered in the spring semester at Venango Campus only. Prerequisites: CIS 110 and 217.
- CIS/SCT 230:** **PRACTICUM IN COMPUTER INFORMATION SCIENCE** **1-2 s.h.**
 Provides undergraduates with an introduction to the role of computer specialists in the everyday operation of a computer machine room and user area. Supplies real experience in such routine exercises as machine event logging; backup/restoration of on-line information; preparation, organization, and revision of system documentation; allocation of user accounts; monitoring of system resources; and fielding of user problems and complaints. A maximum of six credits of the practicum may be applied toward graduation. Students gain actual experience in everyday machine operation by acting as machine room supervisors and interacting with computer users. Prerequisite: CIS 223 or 244.
- CIS 244:** **INTRODUCTION TO PROGRAMMING AND ALGORITHMS II** **3 s.h.**
 Required of all CS majors (but not of IS majors). Examines complex problem-solving techniques, top down design, and program debugging and testing. Prerequisite: CIS 163.
- 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 163 or 300.
- 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 300:** **EVENT-DRIVEN PROGRAMMING** **3 s.h.**
 Introduces a popular, event-driven programming language. Emphasizes using components to construct a program and how these components generate and respond to events. Components include elementary user interface controls such as command buttons, drop down lists, and radio buttons, and more advanced controls, such as data aware controls, for accessing databases. Presents both the syntax and semantics of the language. Applying these features, students complete several small programming projects. Visual Basic is one example of a language that might be chosen. Prerequisite: CIS 223 or 163.
- 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. Prerequisite: CIS 217 and 223 or 244.
- CIS 302:** **INFORMATION SYSTEMS AUDITING AND SECURITY** **3 s.h.**
 Analyzes the Information System audit process, provision and evaluation of controls in all aspects of EDP system operation, and the provision and maintenance of computer security. Stresses internal controls while examining specific controls and security. Prerequisites: ACTG 252 and CIS 223.

- 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. Prerequisites: CIS 163 or 223.
- CIS 304: INTERNET PROGRAMMING** 3 s.h.
A review of the Internet and the World Wide Web. Evaluations of methods, development tool services, standards, and trends used in electronic publishing. Hands-on development with evolving Internet technologies such as Dynamic HTML, Cascading Style Sheets, content animations, client-side scripting, Java applet development, and XML programming. Familiarity with computer imaging and Windows 95/98 is recommended. Prerequisite: CIS 163 or 223.
- 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 163 or 300.
- 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 163 or 300.
- CIS 308: CLIENT-SERVER PROGRAMMING** 3 s.h.
Develops competencies in client-server application development practices and tools. Emphasizes developing distributed database applications that support the information processing needs of business. Students concurrently develop the client interface and the server database using an integrated rapid application development environment. Analyzes issues such as interface design, security, network overhead, and data validation and integrity. Prerequisites: CIS 163 or 300.
- CIS 309: FUNCTIONAL PROGRAMMING** 3 s.h.
Introduces a popular functional programming language. Emphasizes the functional features of the language: how any programming problems can be solved with a function and how functions themselves can be both arguments and return values of other functions. Exposes students to both the syntax and semantics of the language. Applying these features, students complete several small programming projects. Scheme and ML are examples of languages that might be chosen. Prerequisites: CIS 163 or 300.
- CIS 317: ADVANCED MICROCOMPUTING** 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. Covers the major topics that will prepare students for the Comp TIA A+ certification exams. Prerequisite: CIS 217
- CIS 324: DATA STRUCTURE AND FILE UTILIZATION COBOL** 3 s.h.
Primarily considers the concepts of file structure, file processing, and COBOL programming in relationship to organizational processes and needs. Uses COBOL to implement, test, and explore systems concepts, including simulations and database design. Prerequisite: CIS 223.
- 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 163.
- CIS 350: MACHINE ARCHITECTURE AND SYSTEMS SOFTWARE** 3 s.h.
Investigates the basic concepts of machine architecture together with their realization and software implications in various categories of computer systems. Prerequisite: CIS 253.
- 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 254 and 350.
- 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 254 and MATH 300.
- 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.
- CIS 377: COMPUTER GRAPHICS** 3 s.h.
Provides an overview and application of the principles and tools of computer graphics. Includes characteristics of graphical display devices, graphics software primitives, representation, manipulation, and display of two- and three-dimensional objects, interactive graphics and the graphical user interface, and animation. Includes graphics programming projects. Prerequisites: CIS 254.
- CIS 402: DATABASE MANAGEMENT SYSTEMS** 3 s.h.
A study of database management systems with hands-on experience. Students investigate the analysis, design, implementation, and maintenance of a modern database management system. Prerequisite: CIS 301.
- CIS 403: DATA COMMUNICATIONS** 3 s.h.
Focuses on the OSI model of Data communications and uses the model as the basis for discussions of protocols, topologies, transmission media, and communications security. The TCP/IP protocol suite is examined in detail. Covers the major topics that will prepare students for the Comp TIA Network + certification exam. Prerequisite: CIS 223 or 244.

CIS 411: SYSTEMS DEVELOPMENT PROJECT 3 s.h.

Students develop a computer-based solution to a real problem obtained from the university or the community. Working as a member of a group/team, students evaluate an existing system; identify alternative solutions; select a solution; develop a project plan; and design, implement, test, and document the system. Utilizes current technology whenever possible, including microcomputers, and a relational database. Prerequisites: Senior standing.

CIS 422: INTERNSHIP IN COMPUTERS

Provides students the opportunity for practical computer experience in commercial, industrial, governmental, or other participating organizations. Prerequisite: CIS 253 or 324. Junior or senior standing.

CIS 460: PROGRAMMING LANGUAGES AND COMPUTATION THEORY 3 s.h.

Introduces automata theory and Turing machines as well as the associated formal languages. Students will explore the construction and implementation of programming languages allowing the student to choose and use programming languages in a competent manner. Prerequisites: CIS 244, 254, and 340.

CIS 462: SIMULATION AND MODELING 3 s.h.

Covers the advantages and disadvantages of using computer simulation in modeling. Students learn and practice techniques of computer simulation. Prerequisites: CIS 244 or 324.

CIS 499: INDEPENDENT STUDY IN COMPUTERS 1-3 s.h.

Permits students to explore an area of special interest using computers. Department faculty member must direct the special project. Prerequisites: CIS 244 or 324, junior or senior standing.

Cooperative Engineering Program

Coordinator: John Heard, Ph.D.

Committee members:

Professors: Freed, Krugh; **Assistant Professor:** 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 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, 490 and 18 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, page 76, and Pre-professional Studies in Engineering, page 117.



English

Department of English, George Xu, Ph.D., chair

205A Davis Hall

Telephone: 393-2524

E-mail address: xu@clarion.edu

Website: www.artsci.clarion.edu/english/index.htm

Professors: Fink, Graham, Leary, Sheraw, Xu; **Associate Professors:** Bodzioc, Huber, Luthin, MacDaniel, McCarrick, K. Smith, Stemmler, Terman, Welsch; **Assistant Professors:** Downes, Johnson, Knepper, Lane, Pack, Roberts, Rosati, Sarbin, Smart

There are few undergraduate majors that provide you with the critical literacy and multicultural awareness essential for success in any field as does English studies. Since writing and reading literature is a form of self-discovery, as an English major you will not only learn how to intelligently express your own insights, values and opinions, but also deepen your appreciation and knowledge of yourself and the world. Close reading, analytical writing, critical/creative thinking are universally important abilities that will serve the English major well in a variety of rewarding but competitive careers. The worlds of education, teaching, law, human services, marketing, advertising, publishing, public relations, and management welcomes 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 and on the cutting edge of English studies. Our faculty is sensitive to the mosaic of critical and creative writing, literature and multiculturalism that English studies offers to our 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, the Literary Journal, and the Visiting Writers Program. Your personal and professional growth as a Clarion English major prepares you to meet the world with confidence, critical literacy and sophistication.

The English Department is also home to the university's Writing Center which provides assistance to all students in their efforts to become better writers in all subject areas. (See page 20 for details). Students who work as writing consultants in the Center can earn College Reading and Learning Tutor Certification.

ENGLISH, B.A. 48 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 30 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, 301, 303, 304, 306, 307, 356, 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 263, 353, 457, 458, and 459.
- **Movie studies and drama:** One movie studies course (ENG 150, 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*

In addition, the English Department offers two minors, one in English: Literature and one in English: Writing.

English: Literature, Minor

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

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 courses to be selected from ENG 311 through ENG 455 (except ENG 353 and ENG 356).

English: Writing, Minor

Students pursuing the minor in English: Writing, must successfully complete five of the courses listed below.

- A. ENG 207: Research Methodology and Writing

This course is required of all students pursuing the minor in English: Writing. Ideally, it should be taken as the initial course in the sequence.

- B. ENG 202: Beginning Creative Writing
 *ENG 263: English Grammars and English Usage
 ENG 301: Writing Non-Fiction Prose
 ENG 303: The Craft of Fiction
 ENG 304: The Craft of Poetry
 ENG 306: Scientific and Technical Writing
 ENG 307: Business Writing
 *ENG 356: Rhetorical Theory for Writers
 *ENG 482: Composition: Theory and Practice

*A student may take no more than two of the following:
 ENG 263, 356, 482.

The English Department also offers a program in secondary education; see page 159.

English Courses

ENG 10: 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: WRITING II

3 S.H.

Emphasizes development of critical thinking through analytical and argumentative writing and introduces students to research writing. Each semester. All entering students (part-time and full-time) must take the English placement examination. (Credit for advanced placement English or satisfactory SAT verbal scores does not exempt the student from taking the placement test or from fulfilling the university writing requirement.) Transfer students are urged to take the English placement test. 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. Only students required to do so by the English Department as a result of their placement test score must enroll in ENG 110. Unless exempt, all students must take ENG 111. If a student is exempted from ENG 111, the student must still complete three hours of English Composition under 1.a. on the checksheet. This requirement can be satisfied by taking ENG 200, 202, 207, 301, 303, 304, 306, or 307. The English placement examination is given at each of the summer freshman orientation sessions and several times during the academic year. Check with the English Department for specific dates. (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. 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 150: 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. No prerequisite. Each semester.

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 241: VOICES IN CANADIAN LITERATURE** **3 s.h.**
Introduces major English-Canadian writers, presented in their cultural and historical contexts. Selected French-Canadian works in English supplement the core offerings. No prerequisite.
- ENG/ANTH 242: INTRODUCTION TO AMERICAN FOLKLORE** **3 s.h.**
Introduces American folklore and its relationships to American literature. 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 244: SPECIAL TOPICS** **1-3 s.h.**
Focuses on themes and topics of universal and/or current interest as embodied in literature. The special subject of each semester's offerings will be announced in pre-registration. Suitable for both English and non-English majors and may be taken up to three times for credit, provided different topics are offered. On demand.
- 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/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 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 Rossetts, and Meredith. Examines the current renewal of interest in poetry by women and noncanonical writers. Spring, odd-numbered years.
- ENG 325: 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: 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: 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: 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: 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, Chesnutt, 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: 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: 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: 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.
- 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 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 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 Acquisition Across Cultures** **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 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 student-centered workshop in applied writing—specifically, writing for the professions: business, education, medicine, law, and real estate, among others, including academic research itself. Prerequisites: ENG 301 or ENG 307 and consent of instructor. Students should not enroll for the course until they have some particular professional project or target in mind.
- 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.

Geology/Earth Science

Anthropology, Geography, and Earth Science

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Professors: Vento, Zamzow; **Associate Professors:** Ernissee, Ryberg; **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. 66 credits
Required: ES 150, 250, 255, 350, 355, 360, 370, 390; 15 additional hours must be elected from the following courses, GEOG/ES 225, 301, 345, 385, 400, 425, 450, 470, 490; ES 260, 270, 280, 300, 301, 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.

EARTH SCIENCE, B.S. 46 credits
Required: ES 150, 200, 270, 280; and 21 credits among the following earth science/geography electives, ES 201, 250, 255, 260, 310, 330, 350, 355, 360, 370, 375, 380, 390, 455; GEOG/ES 225, 301, 345, 385, 400, 404, 425, 450, 470, 490; GEOG 125; SCED 485. In addition to these 34 credits in earth science/geography, 12 credits from among the following courses are required: BIOL 155/165, 156/166; CHEM 153/163, 154/164; MATH 171, 221, 232, 260, 270 and PH 251, 252.

ENVIRONMENTAL GEOSCIENCE, B.S. 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, 320, 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, 310, 320, 380, 385, GEOG/ES 490; PH 251, 252; BSAD 340.

EARTH AND SPACE SCIENCE	credits
ES 150 Physical Geology with Laboratory	4
ES 200 Solar System Astronomy	3
ES 250 Historical Geology with Laboratory	4
ES 270 Oceanography	3
ES 280 Meteorology	3
ES 410 The Earth Sciences: A Synthesis	3
ES 476 Science, Technology, and Society (STS)	3

Plus 10 additional credits in one of two areas of specialization, Geology or Planetarium Management, and 16 credits of supplemental courses:

CHEM 154/164	General Chemistry II
PH 252	General Physics II
BIOL 155/165	Principles of Biology I
	OR
BIOL 156/166	Principles of Biology II
Plus 4 credits from CHEM, PH, or BIOL	

Courses taken as earth and space electives will be approved by the student’s advisor prior to registration.

In satisfying the general education distribution, page 50, it is required that earth and space science majors schedule MATH 260.

The AGES Department also offers a program in secondary education; see page 159.

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/GEOG 225: CARTOGRAPHY I WITH LABORATORY** **3 s.h.**
 Systematic study of basic concepts and components of thematic map-making. Emphasizes familiarization with and utilization of drafting instruments and equipment essential to map design and construction. Presents techniques of photographic reproduction of student map projects. Two lectures and three hours of laboratory weekly. Prerequisite: GEOG 125 or consent of instructor. Offered 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: LAND FORMS 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. Called geomorphology in older catalogs. 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: METEROLOGY** **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. Prerequisite: ES 111.
- 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. Offered occasionally.
- ES/GEOG 301: CLIMATOLOGY IN ENVIRONMENTAL ANALYSIS** **3 s.h.**
 Introduces climate change and variability. Focuses on various atmospheric processes of change and variation and relates those processes to various surface environmental phenomena. Examines aspects of Earth's past climates (paleoclimates) to fully understand present and possible future climates. Prerequisite: ES 280.

- 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/GEOG 320: AIR POLLUTION METEOROLOGY** **3 s.h.**
Identifies and examines meteorological conditions which produce and affect the concentration of atmospheric pollutants. Analyzes methods and concepts of pollution dispersion in context with the atmospheric conditions associated with individual pollution episodes. Stresses the effects or modification of pollutants on general weather patterns and localized weather. Emphasizes large-scale environmental issues such as greenhouse warming, acid rain, and stratospheric ozone depletion. Prerequisite: ES 280.
- ES/GEOG 325: CARTOGRAPHY II WITH LABORATORY** **3 s.h.**
A systematic study of the new dimensions of cartography in use today. Emphasizes the techniques used in the construction of three-dimensional maps and models of statistical surfaces, diagrams, cartograms, negative scribing, and color separation. Two lectures and three hours of laboratory weekly. Prerequisites: Cartography I and consent 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. Prerequisite CIS 110 or equivalent course, or consent of the instructor. 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 third semester.
- 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, and 360. ES 370 strongly recommended. Summer Session, on demand.
- ES 380: SEVERE WEATHER** **3 s.h.**
Analyzes various types of severe and unusual weather. Seeks enhanced understanding of the causes, movement, life cycles, and dissipation of such severe weather events as: mid-latitude cyclones, blizzards, thunderstorms, tornadoes, hurricanes, lightning, hail, freezing rain, down- and micro-bursts, floods, droughts, and atmospheric optical phenomena. Investigates climatology issues with regard to these events. Discusses techniques and methods of forecasting severe and unusual weather. Prerequisite: ES 280. Every other year.
- ES/GEOG 385: CLIMATOLOGY** **3 s.h.**
Examines the three major components of climatology. Analyzes physical aspects of the atmosphere as a series of long-term weather phenomena. Studies regional characteristics of climate on the basis of worldwide patterns. Emphasizes how applied aspects of climate demonstrate the interrelationship and importance of both physical and regional climatology to humankind. Acceptable for social science or natural science credits. Prerequisite: ES 111 or 280. Every other year.
- 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: AIR PHOTO INTERPRETATION / 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. Prerequisite: GEOG 125 (can be waived by permission of instructor). 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 textual classification of soils. Prerequisites: ES 150 and 255 or permission of the instructor.

ES 410: THE EARTH SCIENCES: A SYNTHESIS**3 s.h.**

Capstone course provides an overview of the history and development of the earth sciences, addresses current issues in the earth sciences, provides intensive hands-on experience with minerals, rocks and fossils, reviews the geology of Pennsylvania, discusses the impact of man on the earth sciences and vice versa, and places all of these in the perspective of the student about to enter into student teaching. Requires field trips. Prerequisites: Junior standing, secondary education major; ES 250. Fall, annually.

ES/GEOG 425: 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 other year.

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 compass traversing, plane tabling, rural and urban land use surveying, and field research. Prerequisites: Cartography I and consent of instructor. Offered occasionally.

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, ES 260, ES 280, and ES 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. Prerequisite: GEOG/ES 345 (can be waived by instructor). 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.

Marine Science Courses**MARS 320: MARINE GEOLOGY****3 s.h.**

Sedimentary and tectonic characteristics of the continental margins and deep ocean basins; sediment transport and deposition in marine environments; marine geophysical methods at sea; marine mineral resources. Prerequisite: Introductory Geology and Oceanography. Summer, on demand.

MARS 420: FIELD METHODS IN OCEANOGRAPHY**3 s.h.**

Work on board small research vessels in the dynamic marine environment; use and application of standard oceanographic instruments and sampling devices; opportunities for independent research. Prerequisite: Introductory Oceanography. Summer, on demand.

MARS 430: COASTAL GEOMORPHOLOGY**3 s.h.**

Presents the origins and dynamics of coastal landforms as constructed by erosional, depositional, and sediment transport processes. Structure, process, and time are examined within the framework of wave and current energetics which define coastal landforms. Field and laboratory investigations are emphasized. Course will be taught at the Marine Science Center at Wallops Island, VA. Prerequisite: Two years of geology. Upper level standing recommended. Summer, on demand.

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.

Geography

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Professors: Howes, McGreevy, McKay, Shirey; **Associate Professor:** Thomas, Vega; **Assistant Professor:** Ayad

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 fifteen 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 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.

GEOGRAPHY, B.A. 57 credits

Required: ES 111; GEOG 100, 125, 250, 257, 260, and nine credits from among the following: GEOG 115, 225, 232, 244, 252, 256, 258, 265, 300, 310, 315, 325, 345, 385, 400, 450, 470, 490, and 499. In addition to these 30 credits of geography, the following courses are required: ECON 211, 212; HIST 111, 112 or 113; HIST 120 or 121; PS 210, 211; ANTH, PSY, or SOC 211 and one additional course in anthropology, psychology, or sociology.

GEOGRAPHY, B.S. 42 credits

Required: ES 111; GEOG 100, six credits from: GEOG 125, GEOG/ES 225, 325, 345, 400, 425, 450, 470 and 490; three additional credits from: ANTH 211, 213 or 218.

Human Geography track: three credits from ES 150, 225, 260, 280, 380; GEOG/ES 301, 320, 385, 404; six credits from GEOG 250, 252, 256, 257, and 258; 12 credits from GEOG 115, 244, 260, 265, 300, 310, 315, and 499; and nine additional credits from ANTH, ECON, HIST, MATH, PS, and SOC.

Physical Geography track: 12 credits from ES 150, 225, 260, 270, 280, 330, 380; GEOG/ES 301, 320, 385, 404; three credits from GEOG 250, 252, 256, 257, 258; and six credits from GEOG 115, 244, 260, 265, 300, 310, 315, and 499; and nine additional credits from BIOL, CHEM, CIS, MATH (221 strongly recommended), and PH.

Geographic Information Sciences track: 12 credits from GEOG 125, GEOG/ES 225, 325, 345, 400, 425, 470, and 490; three credits from ES 150, 260, 280, 380, GEOG/ES 301, 320, 385, and 404; three credits from GEOG 250, 252, 256, 257, and 258; three credits from GEOG 115, 244, 260, 265, 300, 310, 315, and 499; and nine additional credits from BIOL, CHEM, CIS (any course except 110 and 120, a programming course is strongly recommended), and PH.

GEOGRAPHIC INFORMATION SCIENCE, MINOR 18-20 credits

This minor provides students with a solid background in geographic information systems (GIS) and its applications to assist students who are interested in utilizing the GIS techniques and methods in their own disciplines and pursue a career in the GIS applications field.

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 the following areas: Human Geography, Physical Geography, and Techniques in Geography.

GEOG/ES 225: CARTOGRAPHY I WITH LABORATORY**3 s.h.**

Systematic study of the basic concepts and components of thematic map-making. Emphasizes familiarization with and utilization of drafting instruments and equipment essential to map design and construction. Presents techniques of photographic reproduction of student map projects. Two lectures and three hours of laboratory weekly. Prerequisite: GEOG 125 or 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. Offered occasionally.

GEOG/ES 301: CLIMATOLOGY IN ENVIRONMENTAL ANALYSIS**3 s.h.**

Introduces climate change and variability. Focuses on various atmospheric processes of change and variation and relates those processes to various surface environmental phenomena. Examines aspects of Earth's past climates (paleoclimates) to fully understand present and possible future climates. Prerequisite: ES 280.

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 320: AIR POLLUTION METEOROLOGY **3 s.h.**

Identifies and examines meteorological conditions which produce and affect the concentration of atmospheric pollutants. Analyzes methods and concepts of pollution dispersion in context with the atmospheric conditions associated with individual pollution episodes. Stresses the effects or modification of pollutants on general weather patterns and localized weather. Emphasizes large-scale environmental issues such as greenhouse warming, acid rain, and stratospheric ozone depletion. Prerequisite: ES 280.

GEOG/ES 325: CARTOGRAPHY II WITH LABORATORY **3 s.h.**

Systematic study of the new dimensions of cartography in use today. Emphasizes techniques used in the construction of three-dimensional maps and models of statistical surfaces, diagrams, cartograms, negative scribing, and color separation. Two lectures and three hours of laboratory weekly. Prerequisites: Cartography I and consent of instructor. Every other year.

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. Prerequisite CIS 110 or equivalent course, or consent of the instructor. Every other spring.

GEOG/ES 385: CLIMATOLOGY **3 s.h.**

Systematic study of three major components of climatology. Analyzes physical aspects of the atmosphere as a series of long-term weather phenomena. Study of regional characteristics of climate on the basis of worldwide patterns. Demonstrates the interrelationship and importance of both physical and regional climatology to humankind. Acceptable for social science or natural science credit. Prerequisite: ES 111 or 280. Every other year.

GEOG/ES 400: INTRODUCTION TO AIR PHOTO INTERPRETATION AND REMOTE SENSING **3 s.h.**

Study and assessment of the physical and cultural 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. Prerequisite: GEOG 125 (can be waived by permission of instructor). 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 **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

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 compass traversing, plane tabling, rural and urban land use surveying, and field research. Prerequisites: Cartography I and consent of instructor. Offered occasionally.

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. Prerequisite: GEOG/ES 345 (can be waived by instructor). 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.



German

GERMAN, MINOR. See Modern Languages and Cultures.

Gerontology

The minor in gerontology increases educational opportunity at Clarion University by teaching students from a variety of academic programs about the process of aging and the needs of the elderly. Pennsylvania is second only to Florida in percentage of residents over the age of 60. This minor will train people to meet the needs of this increasing segment of our population and sharpen their ability to collaborate in decisions affecting this group.

The minor in gerontology is interdisciplinary as evidenced by the nature of the courses, the sponsorship by four different departments, the administration of the minor by a coordinator, an Interdisciplinary Gerontology Advisory Committee, and the establishment of an outside five-member Advisory Board whose members represent various segments of society at large.

Objectives of the program:

- to educate students from a variety of degree programs about the multifaceted changes and needs of the elderly;
- to prepare students from a variety of degree programs to work with the elderly;
- to provide structure and integration for existing courses in gerontology;
- to give formal and marketable recognition to students who have developed expertise in gerontology;
- to give students an interdisciplinary view of aging;
- to meet the needs and interests of nontraditional students;
- to promote faculty scholarship in an interdisciplinary field.

To enhance the development of gerontological instruction, the Association for Gerontology in Higher Education (AGHE) published its second edition of *Standards and Guidelines for Gerontology Programs* in 1990. These are the recognized standards and guidelines for gerontological education in the United States. Clarion's minor in gerontology adheres to these standards. The Clarion curriculum is based on a required core and elective courses.

Students who wish to explore the possibility of the minor in gerontology may receive information from the coordinator or a member of the Gerontology Advisory Committee: Dr. Iseli Krauss, coordinator (psychology), Dr. Raymond Feroz (special education), Dr. Bryan Huwar (special education), Dr. Janina Jolley (psychology), Dr. Mary Jo Reef (political science, sociology, and philosophy), Mrs. Jane Fox Tarr (nursing), and Dr. Linda Benson (nursing).

GERONTOLOGY, MINOR 15 credits
Required: SOC/PSY/GERO 253, BIOL 257, GERO 499, PSY 467, SOC 353; additional required courses (three-six credits): PSY 499, REHB 495, or SOC 499; and three elective credits: ECON 150 or NURS 365.

History

Department of History, Brian R. Dunn, Ph.D., chair

312 Founders Hall

Telephone: 393-2546

E-mail address: bdunn@clarion.edu

Website: www.artsci.clarion.edu/history/index

Professors: Dunn, Frakes, Piott, B. Smaby; **Associate Professor:** LaRue; **Assistant Professor:** C. Kennedy

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. 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. 39 credits

Required: U.S. history—nine credits; European history—six credits; history of other geographical areas—six credits; and 12 credits of history electives. HIST 410 and 298 are required. Students must complete either a foreign language or the quantitative skills option.

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: six 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 socio-cultural 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 230: WOMEN IN THE UNITED STATES** **3 s.h.**
 Surveys American women's history from Colonial times to the present. Examines both the history of the female experience in the United States and the relationship between women and the rest of society. Includes the power of the domestic sphere, suffragism, female reform, and modern feminism.
- 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 277: VIETNAM: WAR AND PEACE** **3 s.h.**
 Presents an outline of the history of Vietnam from its colonization by the French during the 19th century to the so-called Peace Settlement of 1973 and the new war that followed it. Main focus is from 1945, and the nature of the Vietnamese Revolutionary War. Analyzes the history of American involvement, its objectives, and the consequences of the Vietnamese debacle. Closes with consideration of the global impact of war. Fall, annually.
- 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 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 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 Americans, 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 354: RECENT AMERICAN HISTORY** **3 s.h.**
A study of the political, social, and economic developments and foreign affairs of the United States from World War I to the present. Prerequisite: HIST 121 or consent of instructor. On demand.
- 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 360: 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 362: AFRICAN-AMERICAN HISTORY** **3 s.h.**
Surveys African-American history from its African beginnings to contemporary times. Emphasizes tracing the role of black people in American history in order to develop a better perspective on their contribution to American life. Makes a close study of the junctures in American history where the problems of African-Americans took on new meaning for society at large. 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 socio-political 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 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 381: 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.

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 399: 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. 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.

Humanities

The interdisciplinary Humanities Program is administered in the office of the dean.

HUMANITIES, B.A. 54 credits

54 credits are required from among the following fields: art, English (not including 110 or 111), foreign language (beyond

the first year), music, philosophy, speech communication, and theatre. Each of the fields must be represented by at least one course, and five courses at the 300- or 400-levels must be elected to promote a scholarly interest in at least one field.

Humanities Courses

HUM 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. On demand.

HUM 121: HUMANITIES II: THE RENAISSANCE TO THE PRESENT**3 s.h.**

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



Liberal Studies

Administered by the College of Arts and Sciences, 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 program of study for students who have not decided upon a specific school or major, and (3) an option for students who have a desire to create their own major program. 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.

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 128 semester hours of credit for graduation.

A candidate for the B.S. in liberal studies may not declare a specific major field. Students who decide upon a major field may not remain in the program but must transfer to the college and department offering a program encompassing the major. Students may transfer from other areas into the liberal studies program.



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 have a minimum cumulative quality-point average of 2.00 for all course work.

Specific Requirements

General education is as required by the university (52 s.h.).

A sufficient number of arts and sciences courses in addition to general education courses are required for the program (51 s.h.).

Maximum course work in a single discipline (in addition to general education above) is limited (39 s.h.).

A sufficient number of upper-division courses in arts and sciences, normally at the 300-level or above, are required for the program (39 s.h.).

All courses must be selected in consultation with an advisor.

LIBERAL STUDIES, B.S., CONCENTRATION IN EDUCATION ... 76 credits

Required: ED 110, 121 or 122, 217, 225; a minimum of 21 credits must be earned in the College of Arts and Sciences; a minimum of 39 credits must be at or above the 300 level.

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).

Making Connections Program

The *Making Connections* Program allows students to enroll concurrently in linked-pairs or three-course-clusters focused on a common theme. Examples of themes from previous years include: "Beliefs, the Brain, and the Body," and "Approaching the Year 2000." Students enrolled in the *Making Connections* Program find it helps them get to know professors better and establish friendships and study groups. The *Making Connections* courses meet graduation requirements in general education applicable to all students no matter what their major. For information, contact the associate dean, College of Arts and Sciences.

Mathematics

Department of Mathematics,

Benjamin M. Freed, Ph.D., chair

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Professors: Bhattacharya, Freed, Gendler, Reynolds;

Associate Professors: Bolinger, Carbone, Engle, McConnell, Parker, Ringland, Rock;

Assistant Professors: Beal, Hipfel.; **Instructor:** Jackson

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.

In addition to a B.A. and B.S. degree and two minors, the Mathematics Department offers a B.S. in Industrial Mathematics. This program is designed to help students develop a broad background in mathematics while they prepare for professional employment in business, industry, medicine, or government. The university is an official testing site for the Society of Actuaries. A departmental microcomputer lab of Macintosh computers 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, 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.A. 40 credits
Required: MATH 270, 271, 272, 300, 451, 452, 471, 472, seminar, and 12 credits of mathematics electives in courses 300-level or above.

MATHEMATICS, B.S. IN INDUSTRIAL MATHEMATICS ... 64-66 credits
Required: MATH 270, 271, 272, 285, 290, 300, 321, 322, 340, 350, 360, 370, three credits in mathematics electives from 300-level courses and above, and one of MATH 490, 495, COOP 352, 452. Additional required courses include: CIS 163, ENG 306, PH 258, and 12 credits, of which at least six hours are numbered 300 or above, approved by the chair and advisor. A minimum of “C” grade in MATH 270, 271, 272 and ENG 111 is required.

MATHEMATICS, B.S. IN MATHEMATICS 56 credits
Required: MATH 270, 271, 272, 300, 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: CIS 163, 244, and PH 258. A minimum of “C” grade in MATH 270, 271, 272 and ENG 111 is required.

MATHEMATICS (COOPERATIVE ENGINEERING PROGRAM) .. 68 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; CHEM 151, 161, 152, 162; CIS 163. See also the Cooperative Engineering Program description on page 76.

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.

A program in secondary education with a major in mathematics is described on page 159.

Mathematics Courses

Placement in mathematics courses is based on the student’s mathematics placement test score. The mathematics placement test is administered at each of the orientation sessions or by arrangement with the Mathematics Department. Results are made available before the students register. Students must register for the appropriate level mathematics course as determined by the test 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. Fall, annually.

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 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 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: 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** 3 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. Spring, odd-numbered years.
- 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. Spring, even-numbered years.
- 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. Each semester.
- 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 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. Each semester.

- 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). Spring, even-numbered years.
- MATH/CIS 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 CIS 163.
- 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. Each 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. Each semester.
- 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. Fall, even-numbered years.
- 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. Spring, odd-numbered years.
- 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 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. Fall, annually.
- 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.

Modern Languages and Cultures

Department of Modern Languages and Cultures,
Eleanor ter Horst, Ph.D., chair

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Associate Professors: Fortis, Spina; **Assistant Professors:**
E. Donato, Shao, ter Horst

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
- Courses that fulfill foreign language, general education, or values flag requirements

We recommend that students opt for a double major or a minor, combining two languages, or a language with other fields, 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 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*), 265, 351 352 and six additional credits from 252-level courses or above. In addition to these 30 credits of French, ENG 262; and nine additional credits in French, geography, and history, and/or ENG 457 and 458, and/or other courses by advisement are required.

SPANISH, B.A. 42 credits

Required: SPAN 251, 252 (or 250*), 265, 352, 360, and six additional credits from courses numbered above 252. 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.

FRENCH, GERMAN, OR SPANISH, MINOR 21 credits

Required in either French, German, or Spanish: Credits to be divided among nine required credits, 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.

**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.*

The Department of Modern Languages and Cultures also offers several programs in secondary education; see page 159.

See statement on Study Abroad—International Education, page 19.

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 AND CULTURE** **3 s.h.**
 Introduces the geography, history, government, literature, and the arts of France and Francophone countries. Emphasizes comparing the cultures and values of French societies to those of Anglo-American society. Course conducted in English. No prerequisite. Each semester.
- 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 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: ADVANCED GRAMMAR AND COMPOSITION 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: ADVANCED GRAMMAR AND COMPOSITION II** **3 s.h.**
 Continuation of FR 281. Required for French and French education majors. Prerequisite: FR 281, 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 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. Fall, annually.
- FR 351: 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 352: 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 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, Ame Cesaire, 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.

**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*** 3 s.h.
Equivalent to GER 251 and 252 combined. Prerequisite: GER 250 or 252, 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.
- 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 252 or equivalent.
- 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 351: ADVANCED GERMAN GRAMMAR AND COMPOSITION** 3 s.h.
Intensive review of German grammar designed to increase students' proficiency in all language skills, with particular attention to reading and writing. Exposes students to a variety of literary and compositional styles. Prerequisite: GER 250 or 252 or permission of instructor.
- GER 352: SURVEY OF GERMAN LITERATURE THROUGH THE CLASSICAL AGE** 3 s.h.
Study and discussion of the main trends of German thought and literary expression. Prerequisite: GER 250 or 252 or permission of instructor.
- 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.

**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 Spain and/or Mexico.

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 150: INTENSIVE ELEMENTARY SPANISH* **6 s.h.**
 Equivalent to SPAN 151 and 152 combined. Fall annually.

SPAN 151: ELEMENTARY SPANISH (SPANISH I) **3 s.h.**
 Introduces Spanish language, emphasizing all language skills: listening, speaking, reading, and writing. Each Semester.

SPAN 152: ELEMENTARY SPANISH II (SPANISH II) **3 s.h.**
 Continuation of SPAN I. Prerequisite: SPAN 151 or equivalent.

SPAN 153: ELEMENTARY SPANISH CONVERSATION **3 s.h.**
 Conversational practice emphasizing communication skills. Designed for those students who want to increase their oral/aural proficiency. May be taken concurrently with SPAN 251. Spring, annually.

SPAN 250: INTENSIVE INTERMEDIATE SPANISH** **6 s.h.**
 Equivalent to SPAN 251 and 252 combined. Prerequisite: SPAN 150 or SPAN 152, or equivalent. Spring annually.

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 equivalent. Fall, annually.

SPAN 252: SPANISH IV (INTERMEDIATE II) **3 s.h.**
 Continuation of SPAN 251. Prerequisite: SPAN 251 or equivalent. 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. Required for Spanish and Spanish education majors. Prerequisite: Span 250 or 252, or equivalent.

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. Recommended 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.

SPAN 281: ADVANCED SPANISH GRAMMAR AND COMPOSITION 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: *ADVANCED SPANISH GRAMMAR AND COMPOSITION II* 3 s.h.**
Continuation of SPAN 281. Required for Spanish and Spanish education majors. Prerequisite: SPAN 281, 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 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 282 or permission of instructor.
- 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 century. 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. Prerequisite: SPAN 282 or permission of instructor.
- 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 282 or permission of instructor.
- 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 282 or permission of instructor.
- 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 282 or permission of instructor.
- SPAN 361: *SPANISH-AMERICAN LITERATURE FROM MODERNISMO TO THE 20TH CENTURY* 3s.h.**
Covers the period from beginnings of Modernismo to the writers of the 20th century, emphasizing both prose and poetry. Prerequisite: SPAN 282 or permission of instructor.
- 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 282 or permission of instructor.
- SPAN 461: *SUPERVISED READINGS IN HISPANIC LITERATURE* 3 s.h.**
Selected readings determined by the needs and interests of the individual student. Prerequisite: SPAN 282 or permission of instructor.

**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.*

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.



Music

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Professors: Black, Register; **Associate Professors:** Amrod, Lassowsky, Lazich, McLean, Wells; **Assistant Professors:** Dannessa, Stover, Teske, Wardlaw

Bachelor of Music with Elective Studies in Business

The Bachelor of Music with Elective Studies in Business is an interdisciplinary major between the Department of Music, College of Arts and Sciences, and College of Business Administration. The program provides students with the knowledge and skills necessary to compete successfully within this rapidly expanding and diverse industry. Courses are taken at both the Music Department and the College of Business Administration, giving students the practical skills for entry into the field. Further experience is gained through internships, guest speakers, and other opportunities offered at the campus. Many graduates have gone on to work for major recording, production, and management companies.

The curriculum includes required studies in music, business, and general education, and offers the student opportunities for free electives and for an internship in the music industry. Professional preparation in the curriculum is dependent upon mastery of subject matter in the areas of music, business, general education, and elective areas, combined with field experiences in the industry. The Bachelor of Music with Elective Studies in Business degree is fully accredited by the National Association of Schools of Music.

Prospective music majors are accepted into the department on the basis of an audition before a faculty committee from the Department of Music. Several dates are scheduled throughout the academic year. Contact the Department of Music for additional information.

Program Requirements

GENERAL EDUCATION

The general education distribution for all students in the college is presented on page 50.

REQUIREMENTS IN MAJOR

Required: MUS 110, 126, 127, 128, 129, 226, 227, 228, 229, 274, 345, 346, 347, 360, 370, 374, seven credits of applied music on their major instrument/voice (eight without optional internship), two credits from MUS 241-245, secondary piano and voice requirements, and participation in a performing organization each semester the student is on campus. ACTG 251, MGMT 320, MKTG 360, six credits from MKTG 361, 362, 363, 364, and three credits from MKTG 460 or 468. Internship optional.

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. Performance participation is strongly encouraged.

SENIOR RECITAL

A senior recital is an option for the music-elective studies in business majors. Students who wish to perform a senior recital must audition during the semester prior to the semester in which the recital is to be performed.

PIANO COMPETENCY TEST

Piano competency is required of all elective studies in business majors in order to qualify for graduation. A student may take the Piano Competency Exam at any time, but no later than the end of the sophomore year.

APPLIED MUSIC (LESSONS)

All matriculated music majors must elect applied music credits on instrument/voice each semester in residence. For more information, see Music Department chair.

RETENTION STANDARDS

All majors in music-elective studies in business must maintain the following standards in order to remain in the program:

- a semester average of at least 2.00 quality points in all general education studies.
- a semester average of at least 2.50 quality points in required courses in music and no grade lower than a "C" in this category.
- a semester average of at least 2.50 quality points in all required courses in the College of Business Administration and in required electives.

MUSIC, MINOR 21 credits

Required: MUS 111 or 112, and 131, plus 15 credits from four additional categories. See Music Department chair for additional information.

Music Courses

Applied Music

Individual instruction in strings, woodwinds, brass, percussion, piano, voice, organ and guitar. Stresses development of an attitude of artistic maturity on the part of the student and upon artistic performance at all levels of proficiency. All matriculated music majors must elect applied music credits on their major instrument/voice each semester in residence. Admission by audition and permission of instructor and department chair. Admission of non-majors is dependent upon availability of the staff. For more information, see Music Department chair. Prerequisite: MUS 131 or equivalent background. Course numbers are listed below. 200-, 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>
<i>MUSA 127/227/327/427</i>	<i>APPLIED MUSIC : ORGAN</i>	<i>1 s.h.</i>
<i>MUSA 128/228/328/428</i>	<i>APPLIED MUSIC : GUITAR</i>	<i>1 s.h.</i>

Offered each semester.

PERFORMING ORGANIZATIONS: *MUS 130-145* 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 personal development and life skills and under free electives, with no more than six of these credits counted for graduation. Open to all students with permission of instructor. 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>MADRIGAL SINGERS</i>	<i>0-1 s.h.</i>
<i>MUSA 132/332/SCT 154:</i>	<i>SHOW CHOIR</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>

See page 10 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. Each semester.

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. No prerequisite courses or special abilities required. Each semester.

- 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. Non-performance course. No prerequisites. Each semester.
- 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. No prerequisite. Fall, annually.
- 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.” No prerequisite. Spring, annually.
- MUS 125: FOUNDATION 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 currently in place. Students may be granted an exemption via a theory exam. Fall, annually.
- 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. Fall, annually.
- 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. Spring, annually.
- 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. Fall, annually.
- 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. Spring, annually.
- 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. No prerequisite. Each semester.
- 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. Limited to 12 students; therefore the possibility exists that a non-music major may be required to reschedule the class so freshman/sophomore music majors can elect the class to meet curriculum requirements. Prerequisite: MUS 131 or equivalent background. Each semester.
- 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, Piano Class I, or permission of instructor. Each semester.
- MUS 162: VOICE CLASS I** **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. Each semester.
- MUS 163: VOICE CLASS II** **1 s.h.**
Continuation of Voice Class I. Provides more advanced techniques for producing a free, artistic sound. Provides a survey of various vocal styles from traditional repertoire. Prerequisite: MUS 162 or permission of instructor. Each semester.
- 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. Each semester.
- 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. Each semester.

- 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. No prerequisites. Each semester.
- 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. Fall, annually.
- 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. Spring, annually.
- MUS 228 AURAL SKILLS III** **1 s.h.**
Continuation of Aural Skills II. Emphasizes increasingly complex melodies, rhythmic and harmonic progressions. Prerequisite: MUS 129. Fall, annually.
- 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. Spring, annually.
- 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 241: WOODWIND CLASS I** **1 s.h.**
Introduces playing and teaching the clarinet and saxophone. 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. Spring, annually.
- MUS 242: WOODWIND CLASS II** **1 s.h.**
Introduces playing and teaching the flute, oboe and bassoon. 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. Fall, annually.
- 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. Spring, annually.
- 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. Fall, annually.
- 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. Fall, annually.
- 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. Students must provide their own acoustic six-string classic or folk guitar for class. Prerequisite: MUS 131 or permission of the instructor. Each semester.
- MUS 253: HISTORY OF JAZZ** **2 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. Alternate years.
- 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. Course offered in the spring term of each year and also fall term as faculty load permits.
- MUS 260: VOCAL PEDAGOGY** **1 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. Spring, biennially.

- 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 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. Each semester.
- MUS 333: ELEMENTARY MUSIC METHODS** **3 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. Fall, annually.
- 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. Fall, annually.
- MUS 346: MUSIC FROM ANTIQUITY TO 1750** **3 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. Spring, annually.
- 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. Fall, annually.
- 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. On demand.
- 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. On demand.
- 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. Offered when faculty are available.
- 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. Offered when faculty is available.
- 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. Offered when faculty is available.
- 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. Offered when faculty is available.
- 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. Offered when faculty is available.

- 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. Offered when faculty is available.
- 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. Offered when faculty is available.
- 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. Spring, annually.
- 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. Fall, annually.
- 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. Offered when faculty is available.
- 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. Spring, annually.
- 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. Spring, annually.
- 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. Offered when faculty is available.
- 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. On demand.
- 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. Spring, annually.
- 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. Fall, annually.
- 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. Each semester.
- 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. Offered occasionally.
- 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. Offered when faculty is available.

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. No prerequisite courses are required, but a rudimentary background in music or art is desirable. Offered when faculty is available.

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. Offered when faculty is available, alternate years.

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. Alternate years.

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 236 or permission of instructor. Fall, annually.

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, Sociology and Philosophy (PSSP), Julia Aaron, Ph.D., chair

313 Founders Hall

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Website: www.artsci.clarion.edu/pssp/index.html

Professors: Aaron; **Associate Professor:** Lavin; **Assistant Professor:** 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. We have faculty 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. This gives you the chance to use two very different approaches in your 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. 42 credits

Required: PHIL 111, 211, 212, 311; history of philosophy—three credits; applied ethics—three credits; knowledge—three credits; six credits of philosophy electives; and 15 credits from among courses at the 300-level or above in the arts and sciences. Students must demonstrate competence in a foreign language

PHILOSOPHY, MINOR 18 credits

Required: PHIL 211; six credits from PHIL 111, 212, or 215, and nine credits of philosophy electives at the 300- or 400-level.

RELIGIOUS STUDIES, MINOR 18 credits

Required: PHIL 215, 350, 356; a minimum of nine credits must be taken from the following, with at least six credits chosen from 300-400-level courses: ART 211, 315; HIST 260, 319, 330, 360; ANTH 361. Other courses may be taken with program coordinator’s approval.

Philosophy Courses

- PHIL 11:** *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. Each semester.
- 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. Each semester.
- 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. Each semester.
- 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.**
 Thinkers of ancient Greece, with special attention to Plato and Aristotle. Every other year.
- 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 325:** *SPECIAL TOPICS IN PHILOSOPHY*
 As needed.
- PHIL 350:** *PHILOSOPHY OF RELIGION* **3 s.h.**
 Explores the nature and validity of religious knowledge, the nature and existence of God, the nature of humans and human destiny. No prerequisite. Every other year.
- 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. Every other year.
- PHIL 356:** *ASIAN PHILOSOPHIES AND RELIGIONS* **3 s.h.**
 Examines the philosophies and religions of India, China, and Japan. Emphasizes Hinduism, Buddhism, Taoism, and Confucianism. No prerequisite. Every other year.
- 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 attitudes concerning the nature of human beings. No prerequisite. Every third year.
- PHIL 358:** *ENVIRONMENTAL ETHICS* **3 s.h.**
 Analyzes various environmental theories and approaches, and their consequences. Because decisions about environmental policies have consequences for all life on Earth, practical concerns, such as the use of resources, are also discussed. No prerequisite. Every other year.
- PHIL 360:** *EXISTENTIALISM* **3 s.h.**
 Existentialism understands the human being as the one for whom its own existence is in question. To be human is to ask, implicitly or explicitly, the question of what it means to be. Existentialism, therefore, accords the self-questioning individual a privileged position from which to draw out philosophical insights on (1) rationality, (2) language, (3) values, (4) time, (5) meaning of human existence, (6) inter-personal relations, and (7) God, among other themes. No prerequisite. Every other year.
- 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.
- PHIL 415:** *BIOMEDICAL ETHICS* **3 s.h.**
 Focuses on ethical issues in medical treatment and research, one of the most popular concentrations in applied ethics. Introduces students to the discipline's practice of applying the concepts and methods of theoretical ethics to such topics as informed consent, reproductive technologies, and public policy issues connected with the health-care system. Prerequisite: PHIL 212, or declared major in biology or nursing, or permission of instructor. Every other year.
- PHIL 455:** *PHILOSOPHY OF SCIENCE* **3 s.h.**
 Consists of an attempt to answer the following question: Should we believe what science tells us about the world? Includes a critical inquiry into the nature of scientific theories and scientific explanations, as well as involving an investigation into methods of theory confirmation. Addresses other issues, e.g., whether theoretical entities are real or only useful fictions, whether some theories are reducible to others, etc. Prerequisite: Phil 111 or 211, or permission of instructor. Every other year.

Physics

Department of Physics, Sharon Challener, Ph.D., chair

135 Peirce Science Center

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Associate Professor: Rhode;

Assistant Professors: Challener, Foltz, Heard

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, nuclear physics, physics education, and meteorology. 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.

PHYSICS, B.A. 59 credits

Required: PH 258, 268, 259, 269, 351, 352, 353, 354, 371, 372, 461 and four courses from the following: PH 355, 356, 400, 453, 455, 456, and 460. In addition to these courses in

physics, the following are required: MATH 270, 271, 272, 350; CHEM 153, 163.

PHYSICS, B.S. 68 credits

Required: PH 258, 268, 259, 269, 351, 352, 353, 354, 371, 372, 461 and four courses from the following: PH 355, 356, 400, 453, 455, 456, and 460. 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.

PHYSICS, MINOR 25-27 credits

Required: MATH 270, 271 and PH 251, 252 or PH 258/268, 259/269) and three additional physics courses at the 300 level or higher.

The Physics Department also offers a program in secondary teacher preparation, page 159. The cooperative engineering programs in various fields of engineering, other than chemical and petroleum engineering, are also administered by the Physics Department, page 76 and below.



Physics Courses

PH/ES 200: SOLAR SYSTEM ASTRONOMY

3 s.h.

Examines the motions of the Earth, the 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.

PH/ES 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: PH/ES 200. Spring, annually.

PH 251: GENERAL PHYSICS I

4 s.h.

Introductory course for non-physics majors. Emphasizes mechanics, including vectors, kinematics, dynamics, energy, momentum, rotational motion, harmonic motion, and waves. Integrates computer-based laboratory and lecture into three two-hour class periods. Prerequisite: Algebra. Each fall.

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, and atomic spectra. Integrates computer-based laboratory and lecture into three two-hour class periods. Prerequisites: Algebra and PH 251. Each Spring.

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 all of the various special 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, amplifiers, oscillators, and operational amplifiers. Emphasizes application of circuits to scientific instruments. Prerequisites: PH 259/269 or PH 252, and a course in integral calculus. Spring, even-numbered years.

PH 456: DIGITAL ELECTRONICS**3 s.h.**

Includes an introduction to gate circuits, Boolean algebra in the minimization of gate circuits, flip-flops, counters, timers, the design, operation, and programming of microcomputers, D/A and A/D conversion, and the interfacing of microcomputers to external devices. Prerequisites: PH 259 and 269, or PH 252, or permission of the instructor. Spring, odd-numbered years.

PH 457: DEMONSTRATION 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.A. or B.S. in physics major. Stresses preparation and performance of classroom demonstrations for use 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**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 12: BASIC PHYSICAL SCIENCE 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 13: EXPLORATION IN 20TH-CENTURY PHYSICS FOR THE NON-SCIENCE STUDENT**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. Operates in an interactive engagement format and incorporate constructivist pedagogy. Perform hands-on experiments, work with computer visualization programs, and brainstorm with your classmates and the instructor to create mental models and explain your observations. On demand.

Political Science

Department of Political Science, Sociology and Philosophy (PSSP), Julia Aaron, Ph.D., chair

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Associate Professors: Rourke, Sweet;

Assistant Professor: 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 permit the maximum 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 the full range of contemporary political science: American politics, constitutional law, state and local politics, international and comparative politics, political philosophy, and public administration.

POLITICAL SCIENCE, B.A. 51 credits
Required: PS 210, 211, 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, MINOR 18 credits
Required: PS 210, 211, 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.**
 Introduces students to the study of politics by examining the ideas of selected major political thinkers. Each semester.
- PS 21: AMERICAN GOVERNMENT** **3 s.h.**
 Study of the general principles of the American system of constitutional government emphasizing the organization and 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 250: SPECIAL TOPICS IN POLITICAL SCIENCE**
 Offered occasionally.
- 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, political culture, 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 other year.
- PS 3I: COMPARATIVE POLITICS** **3 s.h.**
 Considers the central issues of comparative political inquiry, emphasizing both developed and developing nations. Every other year.
- 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 instructor. Every other year.
- 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 21. Spring, annually.

- PS 355: POLITICAL PARTIES AND ELECTIONS** **3 s.h.**
A survey course emphasizing the electorate, pressure groups, and public opinion, nature and history of political parties, party organization, methods of nominations, and elections. Examines the place of political parties and elections as instruments of democracy and their place in the framework of Pennsylvania's government. Fall, annually.
- 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.
- 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 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 the case method. Prerequisite: PS 211. Spring, odd-numbered years.
- PS 365: ANCIENT AND MEDIEVAL POLITICAL THOUGHT** **3 s.h.**
Explores the development of political theory from Plato to Machiavelli. Every year.
- PS 366: MODERN POLITICAL THOUGHT** **3 s.h.**
Examines political thought from the Reformation to the 20th century. Every year.
- PS 375: PUBLIC ADMINISTRATION** **3 s.h.**
Introduces public administration emphasizing its function in the American political process. 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 thought.
- 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: MATH 221 or 222, CIS 110 and 217, or consent of instructor. Every other year.

Pre-Professional Studies

Clarion University will grant a baccalaureate degree to a student who has successfully completed the first year of studies at an accredited school of medicine, dentistry, osteopathic medicine, veterinary medicine, podiatric medicine, or optometry, provided the student has met the following requirements:

1. completion of all Clarion University general education requirements for the degree sought;
2. achievement of reasonable proficiency in the student's major as certified by the chair of the department and dean of the college;
3. completion of 96 semester hours at Clarion University or in credits accepted in transfer by Clarion University; and
4. submission of a transcript from the professional school certifying successful completion of the first year.

The student must complete all requirements stated above 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, q.v., 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; 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 should also be aware of the institutional processes by which laws are made, and thus courses in political

science and history are vital. Economics, accounting, and computer science are also recommended by the Association of American Law Schools. Specific courses recommended are as follows: ACTG 251 and 252, ECON 211 and 212, HIST 120 and 121, and PS 211, 354, 364 and 375. Clarion University students are also eligible to participate in a 3+3 early admission/joint degree program with Widener University School of Law. Interested students are strongly urged to contact the pre-law advisor, Department of Political Science, Sociology and Philosophy, for further information.

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 232 or 270; ACTG 251, 252; and BSAD 240.

The student will gain admission to the upper-division business courses by (1) maintaining at least a 2.0 QPA both in business courses and overall; (2) earning at least 50 credits, or junior standing; and (3) planning to register for the GMAT during the junior year, taking the examination during the first semester of the senior year. The upper division courses suggested are FIN 370; MGMT 320, 425; and MKTG 360. Achievement of a 2.75 QPA is generally considered to be minimally acceptable for admission to the M.B.A. Program.

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. Balough, the pre-M.B.A. advisor, before registration each term.

Pre-Medicine, Pre-Dentistry, and Related Fields

Students who enroll at Clarion intending to enter a professional school for the study of medicine, dentistry, optometry, podiatry, chiropractic, or veterinary medicine, 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 also has entered into a "3+4" affiliation agreement with Lake Erie College of Osteopathic Medicine (LECOM), whereby qualified Clarion students can complete their senior year of college at LECOM while beginning their medical 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:	Chemistry Principles I
CHEM	251/262:	Organic Chemistry I
PH	251:	General Physics I
MATH	270:	Calculus I
ENG	111:	Writing II
BIOL	451:	Animal Physiology
CHEM	154/164:	General Chemistry II
		OR
CHEM	152/162:	Chemistry Principles II
CHEM	252/262:	Organic Chemistry II
PH	252:	General Physics II
ENG	200:	Composition and Literature

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

It is possible for students to transfer to a school of pharmacy after the completion of either the freshman or sophomore year. In either case, students should carefully check the requirements of the school they wish to enter. Students who plan two years of pre-pharmacy study at Clarion should include the following courses in their programs: BIOL 155/165, 156/166; CHEM 153, 154, 163, 164, 251, 252; MATH 270; PH 251 and 252. Interested students should contact the pre-professional committee, Department of Biology, for additional information and assistance.

Psychology

Department of Psychology, Randall M. Potter, Ph.D., chair

237 Harvey Hall
 Telephone: 393-2295
 E-mail address: rpotter@clarion.edu
 Website: www.psy1.clarion.edu

Professors: Haynes, Jolley, Krauss, Mitchell, Nicholls, Potter, Schlueter, Vilberg; **Professors:** Ashcraft, Slattery;
Associate Professor: Forden

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. We offer three majors and one minor to fit students' varying career interests. We 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



College of Arts and Sciences

larger school, you won't here. This is a great place to learn about psychology and yourself!

- PSYCHOLOGY, B.A.** 53 credits
Required: PSY 211, 230, 251/252 (each with the grade of "C" or higher), and either 456 or 470, plus at least 27 credits in psychology electives chosen in consultation with a departmental advisor. Three elective courses at the 400-level (PSY 499 may only be used once) in addition to PSY 456 or 470, are required. At least four courses must be taken from among the following: PSY 240, 260, 352, 354, 355, or 362. In addition to the 41 credits in psychology, students are required to select 12 credits from at least two of the following areas: ANTH, ECON, ENG, GEOG, HIST, HUM, MATH, PHIL, PS, SOC, SCT (except 120, 161, 262, 350, 351, 362, 363, 364, and 367), SW, and additional FOREIGN LANGUAGE. In addition to the above, students are required to pass the final examination in either their 250 or 252 language course.
- PSYCHOLOGY, B.S.** 41 credits
Required: PSY 211, 230, 251/252 (each with the grade of "C" or higher), and at least 30 credits in psychology electives (at least five at the 400-level) chosen in consultation with a departmental advisor. Six courses must be taken from among the following: PSY 260, 354, 355, 362, 401, 452, 454, 455, or 458. In addition to the 41 credits in psychology (excluding PSY 220 and 225), students are required to select one course from MATH 171 or above; three credits of CIS (excluding 110); and nine-12 credits, with at least one laboratory course, from BIOL, CHEM, CIS (excluding 110), ES, MATH 171 or above, and PH.
- PSYCHOLOGY, MINOR** 18-20 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 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 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 225: 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/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: SOPHOMORE SEMINAR: THINKING AND WRITING WITHIN 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 21 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.**
 Introduces social gerontology, emphasizing 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 280: INTRODUCTION TO CLINICAL PSYCHOLOGY** **3 s.h.**
 Introduces clinical psychology and related professions. Students will be given an overview of the field so they may make informed decisions regarding career choices and learn the variety of roles and duties performed by professional psychologists as well as some of the issues in the field. Includes history of the clinical professions, research in clinical psychology, introduction to psychological assessment, introduction to the DSM IV, overview of treatment modalities, and career guidance as related to professions in the mental health field. Includes discussions of several current and past controversies with focus on how they have shaped the current status of the profession. Prerequisite: PSY 211 or approval of the instructor. On demand.
- 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 331: CHILD PSYCHOLOGY** **3 s.h.**
 Focuses on cognitive, social, emotional, and physical development from conception through childhood. Prerequisites: PSY 211 and 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 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 393: INDEPENDENT STUDY 1-3 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, and approval of instructor. As approved.
- 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 or with consent of instructor. Annually.
- 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. 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 or with consent of instructor. 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 457: ADULT DEVELOPMENT 3 s.h.**
Study of the development of human adult behavior from early adulthood through middle age. Emphasizes the physical, emotional, intellectual, and social aspects of adult development. Prerequisites: PSY 211 and 260. On demand.
- 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 or with consent of instructor. 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: GERONTOLOGICAL PSYCHOLOGY 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. 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. 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.

Social Sciences

The interdisciplinary social sciences program is administered in the office of the dean.

SOCIAL SCIENCES, B.A. 54 credits
 54 credits are required for the major, including 15 credits in one of the following disciplines: anthropology, economics, geography, history, political science, psychology, and sociology, nine credits in one other, and six credits in each of the remaining. At least 12 credit hours must represent junior- and/or senior-level work.

Sociology and Social Work

Department of Political Science, Sociology and Philosophy (PSSP), Julia Aaron, Ph.D., chair

313 Founders Hall

Telephone: 393-2357

E-mail address: jaaron@clarion.edu

Website: www.artsci.clarion.edu/philosophy

Professors: Girvan, Reef; **Associate Professors:** Petriassans;
Assistant Professor: Fleissner

The field of sociology explores the interrelationships in society, 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: community organizations, government agencies, business, recreational facilities, and/or social service agencies. 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, a Bachelor of Arts degree in Sociology/Psychology, as well as a sociology minor. Internships are available, and the department works out articulation agreements to fit students' needs here or abroad. Professional organizations for major include Alpha Kappa Delta, a national sociology honorary society, and the Sociology Club.

SOCIOLOGY, B.A. 53 credits

Required: SOC 211, 310, 450, and 27 additional credits in sociology, including up to 12 credits in social work courses and chosen in consultation with a departmental advisor. In addition, the following courses are required: ANTH 211, PSY 211, PS 211, either ECON 211 or 212, ECON 221 or MATH 221 or PSY 230, and ECON 222 or MATH 222 or 225. Students must demonstrate competence in either a foreign language or computer science and quantitative course work.

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 SCO 315 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 be taken an additional three credits beyond the required three credits).

GERONTOLOGY, MINOR 15 credits

Required: SOC/PSY/GERO 253, BIOL 257, GERO 499, PSY 467, SOC 353; additional required courses (three-six credits): PSY 499, REHB 495, or SOC 499; and three elective credits: ECON 150 or NURS 365.

Gerontology Courses

- GERO/PSY/SOC 253: INTRODUCTION TO GERONTOLOGY** 3 s.h.
This course will provide a general introduction to social gerontology with emphasis upon the typical aspects of aging. It will review current hypotheses and findings concerning aging processes. No prerequisite. Annually.
- GERO 499: SEMINAR IN GERONTOLOGY** 3 s.h.
Designed to integrate knowledge and hands-on experience obtained in a field setting. The course is conducted as a seminar in which students share their experiences and solve problems. The instructor facilitates this process and provides information to enhance learning. Co-requisite: REHB 495, SOC 499, or PSY 499.

Sociology Courses

- SOC 21: PRINCIPLES OF SOCIOLOGY** 3 s.h.
Basic course in sociology deals with the interaction arising from the association of human beings. Emphasizes learning social roles, the meaning and functions of culture, and the dynamics of social inequalities.
- SOC 250: SPECIAL TOPICS IN SOCIOLOGY**
Offered occasionally.
- SOC/PSY GERO 253: INTRODUCTION TO GERONTOLOGY** 3 s.h.
Provides a general introduction to social gerontology emphasizing the typical aspects of aging. Reviews current hypotheses and findings concerning aging processes. Fall Semester.
- 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 21 or permission of the instructor. Fall, annually.
- SOC 311: SOCIAL STRATIFICATION** 3 s.h.
Examines class, social status, and power inequalities at the community, national, and world levels. Considers a history of inequality, theories of structured inequality, class information, poverty, class, gender, and racial inequalities, modality, and legitimacy. Prerequisite: SOC 211 or permission of instructor. On demand.
- SOC 312: MICRO - SOCIOLOGY** 3 s.h.
Explores the relationship between the individual and the social environment emphasizing group influences on individual attitudes and behavior. Examines major social psychological theories focusing primarily on symbolic interactionism, ethnomethodology, dramaturgy, and the sociology of emotions. Prerequisite: SOC 211 or permission of instructor. On demand.
- SOC 315: SOCIAL WELFARE** 3 s.h.
Examines the nature of social welfare policies and programs in the U.S. An overview of the history and administration of major social welfare programs is presented. Examines programs for the poor, the mentally ill, the disabled, children and families at-risk, the unemployed, and the aged in our society. No prerequisite. Spring, annually.
- SOC 318: SOCIOLOGY OF DEATH AND DYING** 3 s.h.
Provides an exploration of the sociological issues related to death, dying and bereavement. Topics examined include: societal definitions and attitudes, societal rituals and responses, and theoretical perspectives on death, dying and bereavement. Societal concerns regarding end-of-life decisions will be addressed. No prerequisite. Fall, annually.
- SOC 320: CONTEMPORARY SOCIOLOGICAL THEORY** 3 s.h.
Acquaints students with the thought of sociologists who have made major contributions to theoretical sociology since the 1930s. Covers the life, historical context, and major works of theorists such as Parsons, Merton, Dehrendorf, Coser, Collins, Homans, Blau, Turner, Goffman, and others. No prerequisite. On demand.
- SOC 321: SOCIOLOGY OF WORK** 3 s.h.
A study of occupational and organizational work settings, social meanings, types, and social functions of work. Analyzes unemployment and its social causes and consequences. Examines selected workplace reforms and proposed structural changes of work. Prerequisite: SOC 211 or ANTH 211. Once annually.
- SOC 340: THE SOCIOLOGY OF CONFLICT RESOLUTION** 3 s.h.
Analyzes social conflict and introduces the dynamics of conflict resolution. Emphasizes examining theories and methods of active nonviolent conflict resolution in small group and large organizational settings. Includes violence, types of noncooperation, negotiation, adjudication, and mediation. Uses cross-cultural data extensively. Prerequisite: SOC 211. Once, annually.
- SOC 351: CONTEMPORARY SOCIAL PROBLEMS** 3 s.h.
Examines the formation and indicators of problems that affect the functioning of society as a whole. Analyzes solutions to selected social problems. Prerequisite: SOC 211 or permission of the instructor. Once annually.
- SOC 352: THE FAMILY** 3 s.h.
Deals with development of the family and the home in its historical, economic, and legal aspects. Considers the various factors influencing the organization, disorganization, and reorganization of the family, as well as the modern trends in the basic institution. Prerequisite: SOC 211 or permission of the instructor.

- 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. Spring, 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. Fall, annually.
- 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.



Speech Communication and Theatre

Department of Speech Communication and Theatre,
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Professors: Blake, M. Kuehn;
Associate Professors: Marshall, Michel, Powers, H. Yang;
Assistant Professors: Bullington, Levy, McBride, McCauliff, Obotetukudo; **Instructor:** J. Lyle

The Department of Speech Communication and Theatre offers Bachelor of Science, Bachelor of Arts, and Bachelor of Fine Arts degrees in multiple areas of concentration. Whether the students' goals include speaking from the pulpit, the boardroom, the bench, or the Broadway stage, the department offers a degree program that serves their needs and encourages expertise in oral communication. The Bachelor of Fine Arts degree program also serves the allied fields of technical direction and theatrical design. Practical experience through internships and dynamic and ambitious programs in debate competition and theatrical production supplement department course offerings.

Minor programs in speech communication, acting, technical theatre, and dance are available to students regardless of major. Participation in department performance activities is open to all students regardless of major.

SPEECH COMMUNICATION, B.A. 37 credits
Required: one credit in SCT 102, 36 credits selected from the following courses: SCT 113, 115, 155, 200, 210, 213, 214, 251, 255, 256, 257, 264, 300, 310, 311, 312, 320, 358, 375, 380, 400, 411, 415, 464, 470, 490, and 495.

SPEECH COMMUNICATION, B.S. 61 credits
 (1) Concentration in Interpersonal Communication:
Required: SCT 113, CIS 217, one credit in SCT 102; nine credits from MATH 112, 171, 221; ECON 221, 222; CIS 110, 163, 223, 253, 324; PSY 230, 251, 455; COMM

Sociology—Psychology

Mary Jo Reef, Ph.D., coordinator
Professors: Potter, Reef

The interdisciplinary program in sociology-psychology, leading to the Bachelor of Arts degree, is administered jointly by the departments of Sociology and Psychology. The degree was developed to provide a complementary course of study for students interested primarily in social and human service fields.

SOCIOLOGY-PSYCHOLOGY, B.A. 56 credits
Required: SOC 211; one of SOC 311 or 315; one of SOC 310, 312, or 320; and three courses of approved sociology electives, two of which must be at the 300-level or above. PSY 211; at least two of PSY 260, 354, 355 or 454; and three courses of approved psychology electives, two of which must be at the 300-level or above. Research Methods required: PSY 230 and either PSY 251/252 or SOC 450. An internship experience may be selected from PSY 499; SOC/SW 499; COOP 305, 404, 405, 368, 468. Additional coursework is limited to the following courses: SW 211, 212, 225, 350; PSY 380, 464, 471; SOC 318, 340.

Spanish

SPANISH, B.A. SEE MODERN LANGUAGES AND CULTURES.

352; PHIL 111, 311; fifteen credits from among SCT 200, 210, 310, 312, 320, 375, 400; a required elective; eighteen credits selected from other SCT courses; nine credits by advisement in one of the following: anthropology, business, communication, English, history, political science, psychology, sociology to serve as a Cognate Area.

- (2) Concentration in Public Communication: Required: SCT 113, CIS 217, one credit in SCT 102; nine credits from MATH 112, 171, 221; ECON 221, 222; CIS 110, 163, 223, 253, 324; PSY 230, 251, 455; COMM 352; PHIL 111, 311; fifteen credits from among SCT 213, 214, 256, 264, 300, 311, 464, 470; either COMM 101 or 140; eighteen credits selected from SCT 115, 200, 255, 210, 215, 310, 312, 320, 375, 400, GS 222; a Cognate Area of MGMT 320, 321, COMM 431.

SPEECH COMMUNICATION, MINOR 18 credits
Required: SCT 113, 251; three credits from a menu of 200-level speech communication courses; six credits from 300- or 400-level speech communication courses; either SCT 400 or 464 as a capstone course.

THEATER, B.A. 37 credits
Required: One credit in SCT 102; twelve credits from SCT 113, 155, 200, 210, 213, 214, 225, 251, 255, 256, 257, 264, 281, 300, 310, 311, 312, 320, 375, 380, 400, 410, 411, 415, 450, 464, 470, 490, 495; twelve credits from among SCT 120, 161, 201, 253, 254, 261, 262, 301, 302, 304, 350, 351, 352, 359, 361, 362, 363, 364, 366, 367, 368, 369, 370, 461, 490, 495; twelve additional credits from SCT courses.

THEATRE, B.F.A. 57-61 credits
 (1) Concentration in Acting: Required: one credit in SCT 102, SCT 155, 201, 251, 253, 254, 301, 351, 359, 361, 368, 369, 370, 461; MUS 162, 163; three credits in SCT 104, three credits chosen from ENG 344, 345, 412, 413; nine credits chosen from SCT 113, 120, 161, 200, 264, 350, 351, 352, 367, 369, 400; ENG 140, 150, 342, 343, 344, 345. Also required are an audition, four non-credit production labs, and an approved Graduation Project.
 (2) Concentration in Musical Theatre: Required: one credit in SCT 102, SCT 201, 251, 253, 254, 301, 350, 351, 359, 361, 368, 461; twelve credits from MUS 131, 153/154, 161 163, 253, 254; three credits in SCT 104, six credits from theatre electives, six credits from speech electives;

four non-credit production labs, and an approved Graduation Project.

- (3) Concentration in Technical Design/Direction: Required: one credit in SCT 102, SCT 113, 161, 253, 254, 261, 262, 352, 359, 362, 364, 367, six credits from ART 121, 125, 126; ENG 140, MUS 131; nine credits chosen from SCT 155, 200, 215, 350, 351, 363, 369; ART 125, 126, 211, 212, 222, 314; ENG 150, 342, 343, 345, 412, 413; COMM 152, 251; six credits in SCT 104; four 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.

THEATRE: ACTING, MINOR 18 credits
Required: Six credits from SCT 253, 254; nine credits chosen from SCT 155, 301, 361, 369, 461; SCT 359 as the capstone course.

THEATRE: DANCE, MINOR 18 credits
Required: SCT 201, 253; three credits from MUS 111 or MUS 131 (elementary education majors may substitute MUS 133 for two credits and SCT 103 for one credit); nine credits from SCT 301, 302, and 304, and performance participation in at least one university theatre dance concert.

THEATRE: TECHNICAL, MINOR 18 credits
Required: Six credits from SCT 253, SCT 262; nine credits chosen from SCT 261, 352, 362, 364, or 367; SCT 359 as the capstone course.

Speech Communication and Theatre Courses

SCT 101-104: *SPEECH COMMUNICATION AND THEATRE ACTIVITIES* **1-3 s.h.**

Students earn one to three credits on a contract basis through participation in one, or more than one, of the SCT activities, with a maximum of six credits possible in SCT 101-104. Credit for SCT 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 SCT 101-104 based on the student's interest and ability in the activity.

SCT 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 SCT Activities," subject to approval by instructor and department chair. No more than three credits may be taken in SCT 101 during any one semester. Students should not enroll in SCT 101 and 256 for credit concurrently. Each semester.

SCT 102: *INDIVIDUAL SPEAKING EVENTS PROGRAM* **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 SCT Activities," subject to approval by instructor and department chair. No more than four credits may be earned in SCT 102 during any one semester. Speech communication and theatre majors are required to complete one credit in SCT 102 as specified in the degree program to satisfy the performance activity requirement in their major. Each semester.

- SCT 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 SCT Activities,” subject to approval by instructor and department chair. No more than three credits may be earned in SCT 103 during any one semester. Students may not enroll concurrently in SCT 103 and 254, 350, or 361 without instructor permission. Each semester.
- SCT 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 SCT Activities,” subject to approval by instructor and department chair. No more than three credits may be earned in SCT 104. Is a requirement for all B.F.A. theatre majors. Each semester.
- SCT 112:** **ORAL COMMUNICATION FOR NON-NATIVE SPEAKERS** **3 s.h.**
Helps college students who are non-native speakers of English to improve their oral communication competence. Experiential learning approach emphasizes activities that promote involvement and interaction with the host culture. Students are expected to make several oral presentations. Native speakers of English are not permitted to enroll. A student may not take both SCT 112 and 113 for credit.
- SCT 113:** **FUNDAMENTALS OF SPEECH** **3 s.h.**
Study, application, and evaluation of principles of organization, evidence, reasoning, critical thinking, verbal and nonverbal behavior, one-way and two-way communication, and small group interaction in the oral communication setting. Emphasizes meeting the individual needs of students through individualized instruction utilizing communication experiences. Each semester.
- SCT 120:** **THEATRE PLAY PRODUCTION** **3 s.h.**
Introduces elements of theatre, including directing, acting, make-up, criticism, stagecraft, and stage lighting. No prerequisites. Summer, annually.
- SCT/HON 125:** **MODES OF DISCOURSE** **6 s.h.**
Interdisciplinary course integrates the students’ production of both written and spoken discourse. Alternative method of teaching communication draws upon the skills of instructors from English and speech communication and theatre. Taken by freshmen enrolled in the Honors Program, and will replace both ENG 111 and SCT 113. (Not open to students who have taken ENG 111 or SCT 113.)
- SCT 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.
- SCT 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. Fall, annually.
- SCT 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.
- SCT 200:** **INTERPERSONAL COMMUNICATION THEORY AND PROCESSES** **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. Prerequisite: SCT 113 or consent of instructor. Each semester.
- SCT 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.
- SCT 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. Spring, odd-numbered years.
- SCT 213:** **ADVANCED PUBLIC SPEAKING** **3 s.h.**
Examines the practice and principles of effective public speaking. Includes detailed analysis of the areas of invention, arrangement, style, and delivery, and an introduction to speech criticism as a tool to improve the speaker’s own abilities. Prerequisite: SCT 113 or consent of instructor. Each semester.
- SCT 214:** **BUSINESS AND PROFESSIONAL SPEAKING** **3 s.h.**
Focuses on how people use speech communication skills in business and professional settings. Surveys modern speech communication theory as well as coping in groups, listening, negotiation, influencing others, instructional communication, and barriers to effective business and professional speaking. Theory and performance based. Students are expected to make several oral presentations. Prerequisite: SCT 113 or consent of instructor. Offered each semester; Spring Semester’s designated section must be taken concurrently with COMM 405.

- SCT 215:** *SPECIAL TOPICS IN SPEECH COMMUNICATION AND 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 speech communication and theatre. May be taken for a maximum of nine credits in the major. On demand.
- SCT 225:** *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. Fall, annually.
- SCT/CIS 230:** *PRACTICUM IN COMPUTER INFORMATION SCIENCE* **1-2 s.h.**
 Introduces the role of computer specialists in the everyday operation of a computer machine room and user area. Offers real experience in such routine exercises as machine event logging; backup/restoration of on-line information; preparation, organization, and revision of system documentation; allocation of user accounts; monitoring of system resources; and fielding of user problems and complaints. A maximum of six credits of the practicum may be applied toward graduation. Students enrolled in the course are required to gain actual experience in everyday machine operation by acting as machine room supervisors and interacting with computer users. Prerequisite: CIS 223 or 244. Each semester
- SCT 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.
- SCT 253:** *INTRODUCTION TO THE THEATRE* **3 s.h.**
 Explores the techniques and contemporary practices in the organization of dramatic material. Surveys the division of labor for creation of dramatic material. Analyzes literary concepts, including realism and existentialism, that motivate the contemporary audience. Each semester.
- SCT 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.
- SCT 256:** *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. Fall, annually.
- SCT 257:** *ADVANCED DEBATE* **2 s.h.**
 Further experience in competitive debating and in a variety of debating forms is provided. Prerequisite: Consent of instructor. On demand.
- SCT 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: SCT 161 or consent of instructor. Spring, odd-numbered years.
- SCT 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: SCT 161 or consent of instructor.
- SCT 264:** *DISCUSSION* **3 s.h.**
 Expands the students' knowledge of the concepts and theories of group communication. Emphasizes the task, leadership, and interpersonal skills of group participants. Each semester.
- SCT 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. Spring, even-numbered years.
- SCT 300:** *COMMUNICATION IN ORGANIZATIONS* **3 s.h.**
 Gives insight into traditional and modern concepts of channels of communication in simple and complex organizations, emphasizing informal and formal group dynamics, interpersonal relationships, leadership, communication theory, and creativity. Each semester.
- SCT 301:** *DANCE II* **3 s.h.**
 Continuation of technique learned in Dance I. Students transfer application of technique into choreographed pieces. Emphasizes a variety of dance styles. Prerequisite: SCT 201 or consent of instructor. Spring, annually.
- SCT 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: SCT 301.

- SCT 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: SCT 301 or 302 or permission of instructor.
- SCT 310: THE RHETORIC OF CONFLICT 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. Spring, even-numbered years.
- SCT 311: PERSUASION 3 s.h.**
Study and practice in persuasive speaking. Includes general theories of persuasion, the role of persuasion in a democratic society, and introduces modern experimental research. Spring, odd-numbered years.
- SCT 312: 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.
- SCT 320: GENDER AND COMMUNICATION 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.
- SCT 350: SUMMER DRAMA WORKSHOP 3 or 6 s.h.**
Combines study and practice in the dramatic arts and includes formal, intensive study 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.
- SCT 351: ADVANCED THEATRE PRODUCTION 3 or 6 s.h.**
Advanced study and practice in the dramatic arts, including projects 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: SCT 120 or 350. Summer, annually.
- SCT 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: SCT 253, 254, 362, or permission of instructor. Fall, even-numbered years.
- SCT 359: HISTORY OF THE THEATRE 3 s.h.**
History of plays and playwrights from the fifth century BC to the present. Prerequisite: SCT 253 or permission of instructor. Spring, annually.
- SCT 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. Pre-requisite: SCT 254. Spring, even-numbered years.
- SCT 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: SCT 161 or consent of instructor. Spring, odd-numbered years.
- SCT 363: THEATRICAL MAKE – UP 3 s.h.**
Fundamentals and application of stage make-up. Fall, odd-numbered years.
- SCT 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. Fall, even-numbered years.
- SCT 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 theatrical organization, rehearsal procedures, and performance duties.
- SCT 367: THEATRICAL COSTUMING 3 s.h.**
Emphasizes the designing and building of costumes for the stage. Includes costume history, fashion trends, and rationales; developing a sense of visual design incorporating the elements of color, tone, shape, texture, and a sense of theatre. Student projects and required lab provide experience in the craft. Spring, even-numbered years.
- SCT 368: PROFESSION 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.
- SCT 369: PLAYING SHAKESPEARE 3 s.h.**
Advanced acting course helps students solve the problems associated with performance of the plays of William Shakespeare. Focuses on an approach to speaking the text. Also explores physical embodiment of the text. Prerequisite: SCT 361 or 254 and permission of instructor. Spring, even-numbered years.

- SCT 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. Pre-requisites: SCT 251 and 361 or 254 with permission of instructor. Spring, odd-numbered years.
- SCT 375: 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. Spring.
- SCT 380: 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). Spring, odd-numbered years.
- SCT 400: 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. Offered on a tri-semester basis.
- SCT 410: RHETORICAL CRITICISM** **3 s.h.**
 Involves study and application of the major types of rhetorical criticism, including both traditional and contemporary approaches. Utilizes various critical forms to analyze and criticize actual speeches and other forms of the spoken word. Spring, even-numbered years.
- SCT 415: HONORS SEMINAR IN SPEECH COMMUNICATION** **3 s.h.**
 Available to students who have demonstrated a willingness and ability to undertake advanced academic work in the area of speech communication. Admission by department invitation only. On demand.
- SCT 450: 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. Fall, annually.
- SCT 461: STYLES OF ACTING** **3 s.h.**
 Examines playing the character within the framework of historical style. Focuses on how to recognize style/period through the text and how to solve the problems of assuming and communicating style. Prerequisites: SCT 254 and 361 or consent of instructor. Spring, odd-numbered years.
- SCT 464: 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.
- SCT 470: COMMUNICATION 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. No prerequisite.
- SCT 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.
- SCT 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.

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 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.

Women's Studies Program

Deborah A. Burghardt, Ph.D., director

Office: 210 Harvey Hall

Telephone: 393-2720

E-mail address: dburghardt@clarion.edu

Website: www.wartsci.clarion.edu/women/wsdept.htm

Women's Studies is an interdisciplinary minor program designed to enhance the preparation of students in any major. By examining women's experiences, perspectives, status, and contributions to society, students gain valuable insight into the roles of women and men. By considering knowledge about women that has been previously omitted, distorted, or minimized in the university curriculum, students learn to think critically and creatively. They develop problem-solving and cross-cultural communication skills that employers believe help students value diversity in the workplace and function effectively in team-based settings. Women's Studies background is also important for students seeking to work in the public and private sectors where women and girls make up the majority of the customer base or clientele.

Women's Studies courses include scholarship by and about women of diverse races, ethnicities, sexualities, classes, etc. in the humanities, social sciences, education, business, and physical sciences. Outstanding professors in their disciplines from across campus teach the courses in ways that promote peer interaction, knowledge application, and contribution to societal change. Students may become active members of a flourishing Women's Resource Center, Women's Studies Honorary, Women United organization, and women's leadership institutes. Stimulating visiting scholars series, conferences, and teas that feature work on women and gender are also available for the campus and local community.

A minor in women's studies is available to all qualified students who are enrolled in a baccalaureate degree



program. To earn a minor in women's studies, the student must complete 18 credits of women's studies courses, including WS 100, Survey of Women's Studies; WS 490, Seminar in Women's Studies; and at least six other credits at the 300-/400-level.

WOMEN'S STUDIES MINOR 18 credits
Any undergraduate student may earn a minor in Women's Studies by completing 18 credits of Women's Studies courses, including WS 100, Survey of Women's Studies; WS 490, Seminar in Women's Studies; and at least six other credits at the 300-/400-level. Twelve credits are to be selected from ANTH 216; ART 216; ED 406; ENG 265, 365; GEOG 315; HIST 230; HPE 370; MKTG 463; PHIL 357; PSY 220, 340; SCT 281, 320; SOC 452; WS 200, 300. Disciplinary courses may count toward the minor and general education and/or major requirements.

Women's Studies Courses

WS 100: SURVEY OF WOMEN'S 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 in society and history, among other topics. No prerequisite. Each semester.

WS 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.

WS 490: SEMINAR IN WOMEN'S 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, WS 100 plus nine additional hours of women's studies courses, or consent of instructor. On demand.

College of Business Administration



College of Business Administration

Sarah Bryant Bower, Ph.D., dean

330 Still Hall

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E-mail address: sbryant@clarion.edu

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 – The Association to Advance Collegiate Schools of Business. Fewer than 25 percent of the universities offering business administration and management education are AACSB International accredited. We are the first university in the State System of Higher Education to achieve AACSB International accreditation of all of its business degree programs including the master's degree. The accreditation provides external validation of the internationally competitive nature of the educational experience that 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.

American Bar Association (ABA)

Association of Small Business Development Centers (ASBDC)

National Council on Economic Education (NCEE)

Degree Listing

Philosophy

The College of Business Administration offers curricula leading to the degree of Bachelor of Science in Business Administration, the Master of Business Administration, the Associate of Science degree in business administration, and the Associate of Science degree in legal business studies. The College of Business Administration also offers minor programs in international business, economics, and business administration for non-business 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 *Master of Business Administration* bulletin, which may be obtained from the College of Business Administration, 840 Wood Street, Clarion University, Clarion, PA 16214-1232. The descriptions of the Associate of Science degree programs are found on pages 186-188.

All candidates for the Bachelor of Science or Associate of Science degree 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 majors:

- Accountancy (B.S.B.A.)
- Business Administration (A.S.)
- Business Economics (B.S.B.A.)
 - Economics (Minor)
- Finance (B.S.B.A.)
- Industrial Relations (B.S.B.A.)
- International Business (B.S.B.A.)
 - International Business (Minor)
- Legal Studies (A.S.)
- Management (B.S.B.A.)
- Management/Library Science (B.S.B.A.)
- Marketing (B.S.B.A.)
- Real Estate (B.S.B.A.)

Business Administration (Minor)

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, management/library science, 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 has as its mission providing high quality undergraduate and graduate education that primarily prepares residents of Western Pennsylvania for positions in business, industry, and government. The College of Business Administration also seeks to serve the needs of a

diverse student body and faculty complement which comes from throughout the United States and the world. The College of Business Administration seeks to support continuous professional development of faculty through continuing education, scholarship, and professional consulting. These development activities should be designed to enhance classroom teaching; lead to the development of effective instructional methods, materials, and curriculum; provide application of theoretical knowledge; and assist regional businesses and industry. The College of Business Administration seeks to provide service to Clarion University as well as citizens and organizations throughout its service region.

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 transferring into the College of Business Administration from other accredited colleges and

universities must have earned a cumulative 2.50 QPA on a 4.00 scale. This applies to all course work taken at all universities prior to attending Clarion University. Clarion University students transferring from majors outside the College of Business Administration must have earned either an overall 2.50 QPA or a 2.50 QPA during their most recent full-time (12 or more credits) semester at Clarion University.

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. Beginning in fall 1991, all students accepted to the College of Business Administration must earn a grade of "C" or better in each of these required mathematics courses.
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; and
 - c. completed all required courses in the lower division business core (ECON 211, ECON 212, CIS 217, ACTG 251, ACTG 252, ECON 221, ECON 222, BSAD 240) with a minimum 2.00/4.00 QPA.

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 50. 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 their equivalents) in fulfilling general education or free elective requirements. They must also add six credits in economics (ECON 211 AND 212). The general education requirements are summarized as follows:

Liberal education skills	15 credits
Liberal knowledge:	
Physical and biological sciences	9 credits
Social and behavioral sciences	9 credits
Arts and humanities	9 credits
Health and personal performance	4 credits
General education electives	6 credits
Additional general education (economics)	6 credits
TOTAL	58 credits

Business Foundation Requirements

Regardless of the major chosen, all students of business administration must take 36 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:

ADDITIONAL GENERAL EDUCATION

ECON 211: Principles of Macroeconomics	3 credits
ECON 212: Principles of Microeconomics	3 credits

ACCOUNTING AND QUANTITATIVE

CIS 217: Applications of Microcomputers	3 credits
ACTG 251: Financial Accounting	3 credits
ACTG 252: Managerial Accounting	3 credits
ECON 221: Economic and Business Statistics I	3 credits
ECON 222: Economic and Business Statistics II ...	3 credits

ENVIRONMENTAL

BSAD 240: Legal Environment I	3 credits
ECON 310: Intermediate Microeconomic Theory ...	3 credits

NOTE: ECON 212 is a prerequisite for ECON 310.

FUNCTIONS

MGMT320: Management Theory and Practice	3 credits
MKTG 360: Principles of Marketing	3 credits
FIN 370: Financial Management	3 credits
MGMT425: Production Management	3 credits

ADMINISTRATIVE PROCESS

BSAD 490: Administrative Decision-Making	3 credits
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NOTE: MGMT 320, MKTG 360, and FIN 370 are prerequisites for BSAD 490.

TOTAL: 42 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:

accountancy	management
business economics	management/library science
finance	marketing
industrial relations	real estate
international business	

Twenty-four hours of business and economics electives are required for each major (27 for Management/Library Science). 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,
Thomas W. Oliver, Ph.D., chair
 334 Still Hall
 Telephone: 393-2628
 E-mail address: tolover@clarion.edu
 Website: www.clarion.edu/coba/accy/

Professors: Oliver, Pineno; **Associate Professor:** Farinacci
Assistant Professor: Otte

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. Spring, annually, Venango only.
- 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. Fall, annually, Venango only.
- 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. Spring, annually, Venango only.
- 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. Fall, annually, Venango only.

- 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. Spring Semester.
- 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. Annually.
- 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. Spring Semester.
- 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. Annually.
- 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. Annually.
- 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. Each semester.
- ACTG 463: TAX PLANNING** **3 s.h.**
Acquaints students with tax planning techniques that can be used to accomplish an individual's financial goals. Enables students to suggest actions that fit the individual's financial priorities based on an understanding of financial position, cash flow and income, gift and estate tax matters. Prerequisite: ACTG 353. Annually.
- 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. Spring Semester.
- 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,
Robert S. Balough, Ph.D., chair
 333 Still Hall
 Telephone: 393-2627
 E-mail address: econ@clarion.edu
 Website: www.clarion.edu/econ

Professors: Balough, Sanders, Sohng, Stine, C. Yang; **Associate Professors:** Raehsler, L. Smith; **Assistant Professor:** 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. Economics is sometimes called the “mother science” of the business disciplines.

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 wide 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 a 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), fifteen 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 323, 410, 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 U.S. 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 for careers in business, industry, and government in paths such as international securities analysis, economic development, global marketing, multinational finance, overseas management, and many more. It also develops the skills needed for effective interaction with foreign businesses and government officials. A minor in International Business is also available to complement any major.

Clarion’s program is designed to help improve writing, analytical, and presentation skills by practice in class projects, case analyses, data analysis simulations, modeling, and other activities. The well-established program boasts faculty whose combined skills, experience, and pedagogy helped to earn the college its elite accreditation with AACSB. The faculty has many combined years of teaching experience, both in the United States and abroad, and research publications in international business. The learning atmosphere is characterized by modern computer and teaching equipment, small classes, individual attention from professors, and personal advisors to assist in scheduling classes.

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, working with a foreign or international firm, or completing a foreign study abroad 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 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 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 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. 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. 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. 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.
- 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. 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. 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. 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. 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. Fall, annually.
- ECON 410: 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. Prerequisites: ECON 222, 310, and ACTG 252. On demand.
- ECON 461: TECHNOLOGY TRANSFER AND MULTINATIONAL CORPORATIONS** **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 and 222, 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 212 and senior standing. Spring, 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.

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

218 Still Hall

Telephone: 393-2208

E-mail address: belloiti@clarion.edu

Website: www.clarion.edu/coba/finance

Professors: Belloit, Eicher, Ewedemi, Quesenberry, Stuhldreher, Yeaney; **Associate Professor:** Eichlin; **Assistant Professors:** Bish, Shepard

The finance curriculum prepares students for a variety of positions in financial institutions and other corporations. 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, management, finance, and investment in real estate.

FINANCE (B.S.B.A.) 24 credits
Required: FIN 371, 375, 376 471, three courses from FIN 373, 374, 377, 473, 474, 476, 480, RE 373, 471, ECON 370 or 371, and a 3 credit hour finance or other business elective. This course must an international course unless FIN 480 has been chosen.

REAL ESTATE (B.S.B.A.) 24 credits
Required: RE 270, 271, 373, 470, and 471, at least two courses from RE 372, 374, 472, or 475 and one course from ACTG 353, 453, 463, ECON 314, 370, 470, FIN 375, 473, 474, 476, MGMT 323, 324, 427, MKTG 363, 364, 460, or 461. Real estate majors must select a 3 credit-hour international business elective and a 3 credit-hour real estate or other 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 only courses applicable toward meeting requirements of the salesperson licensing examination.



Business Administration Courses (see additional BSAD courses on page 146)

- 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. Each semester at Clarion Campus. Spring, annually at Venango.
- 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. Biannually, 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.

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. Fall, 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. Spring, 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. Fall, annually.
- 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 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. Spring, annually.
- 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. Spring, 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. Once 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 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.

Office Management Courses

- OFMT 131: KEYBOARDING** **2 s.h.**
Beginning keyboarding course for those students who have had no typing or keyboarding experience. Students will be tested for proficiency and then proceed at their own pace. Emphasis will be on keyboarding speed and accuracy. The course will cover business and personal letters, manuscripts, rough drafts, centering, and tabulation problems. Required for office management students who have not had previous keyboarding or typing experience. Annually, Venango only.
- OFMT 132: ADVANCED KEYBOARDING** **3 s.h.**
Advanced keyboarding course. Emphasizes speed and production of mailable work from rough drafts and unarranged office problems. Includes a unit on keyboarding from recorded dictation. Prerequisite: Previous typing experience, OFMT 131, or permission of instructor. Annually, Venango only.
- OFMT 221: OFFICE MANAGEMENT** **3 s.h.**
Prepares students to function as administrative office managers. Includes hiring procedures, management styles, employee pay and benefits, equipment selection, and changes in today's office procedures and personnel policies. Venango only.
- OFMT 231: OFFICE PROCEDURES AND FIELD EXPERIENCE** **3 s.h.**
Combines lecture with practical exposure to office procedures. Class meets on a regular basis for lecture, instruction, and orientation relative to professional responsibilities, ethics, and career considerations for secretarial and clerical workers. Requires office management majors to work in an office during their second year in the program after they have completed their basic courses in typing, shorthand, and word processing. Prerequisites: Production typing, executive shorthand, and word processing. Venango only.
- OFMT 232: WORD PROCESSING** **3 s.h.**
Emphasizes concepts of word processing and hands-on experience on microcomputers using a word processing program. Each semester. Venango only.

OFMT 233: INTRODUCTORY WORD PROCESSING***1 s.h.**

Introductory word processing course provides students with enough word processing skills to enable them to create, edit, and print such documents as reports and term papers for their college courses, as well as basic keyboarding and editing skills. Each semester. Venango only.

OFMT 234: INTERMEDIATE WORD PROCESSING***1 s.h.**

Offered as a one-credit course for students who want to learn more advanced features of word processing either for use in an office setting or for personal use. It is the second portion of the three-credit OFMT 232: Word Processing course that has been offered as a required course in the Office Management concentration. Students who have had some experience with introductory word processing features may wish to take this course to gain more knowledge of word processing features. Prerequisite: OFMT 233 or CIS 217. Each semester. Venango only.

OFMT 235: ADVANCED WORD PROCESSING***1 s.h.**

Advanced portion of the word processing course. Includes advanced features used in office applications. Students learn to create tables, columns, charts, and merged documents, along with other advanced applications. This is the third or advanced portion of the current OFMT 232: Word Processing course. It is offered as a one-credit course that meets for a five-week period. Prerequisite: OFMT 234. Each semester. Venango only.

**As an alternative to the three-credit OFMT 232: Word Processing course, OFMT 233, 234, and 235 are available as one-credit courses taken over a period of five weeks, depending on the student's prior knowledge or objective for enrolling in the course.*

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. Fall, 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. Spring, 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. Fall, 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: RESIDENTIAL REAL ESTATE APPRAISAL**3 s.h.**

Introduces the principles of real estate appraisal. Focuses primarily upon those appraisal techniques and analyses which concern the estimation of the value of one-to-four family residential property. Prerequisite or co-requisite: RE 271. Offered biennially.

RE 471: REAL ESTATE INVESTMENT ANALYSIS**3 s.h.**

Provides the necessary background to evaluate prospective real estate investment. Examines 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. Spring, annually.

RE 472: INCOME PROPERTY APPRAISAL**3 s.h.**

Provides advanced instruction in income property appraisal. Addresses the techniques and analysis necessary to estimate the value of an income-producing property. Prerequisite: RE 470. Offered biennially.

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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E-mail address: jpesek@clarion.edu

Website: www.clarion.edu/coba/adsci

Professors: Anderson, Fulmer, Pesek, Roth; **Associate Professors:** Johns, Tangpong; **Assistant Professor:** Kavosi

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. Three majors (management, industrial relations, and management/library science) and three tracks (general management, small business management, and sport 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 Management 9 credits

Required: Three courses from BSAD 437, MGMT 323, 420, 423, 427 428, 445 450, 482, 483, 485 or 486.

Small Business Management 9 credits

Required: MGMT 323, 427, and 428.

Sport Management 9 credits

Required: HPE 380, 408 and MGMT/HPE 430.

All majors must take an additional 3 credit-hour 300-/400-level business course or BSAD 241 to complete their 24-credit hour major.

MANAGEMENT/LIBRARY SCIENCE (B.S.B.A.) 27 credits

Required: LS 257, 258, 357, 361, 385, 491, MGMT 321, 324 and 426.

INDUSTRIAL RELATIONS (B.S.B.A.) 24 credits

Required: ECON 351, MGMT 324, 482, 483 and 485. Two courses from BSAD 437, HIST 363, MGMT 321, 322, 445, 450, 486, PSY 350 or SOC 321, plus another 3 credit-hour



business elective. Industrial relations majors must select a three credit hour “international business” content course to complete their 24-credit-hour major.

BUSINESS ADMINISTRATION, MINOR 21 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.

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.

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 Courses (see additional BSAD courses on page 141)

- 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: SELECTION AND 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 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. On demand.
- MGMT 423: BUSINESS AND SOCIETY** **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. Once every two years.
- MGMT 425: PRODUCTION 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: INTERNATIONAL BUSINESS** **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: SMALL BUSINESS 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. Once every three semesters.
- 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. Once every three semesters.
- MGMT/HPE: 430: 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. Every other semester.
- 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: TOTAL QUALITY MANAGEMENT** **3 s.h.**
 Examines Total Quality Management (TQM), 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, and various TQM tools and techniques. Prerequisite: MGMT 320. Annually.
- 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. Spring, annually.
- MGMT 483: WAGE AND SALARY ADMINISTRATION** **3 s.h.**
 A study of the formation and administration of compensation systems as they relate to the changing nature of employee rewards and expectations. Emphasizes job and performance evaluation, fringe benefits, and rewards for special groups. Prerequisite: MGMT 324. Spring, annually.
- MGMT 485: INDUSTRIAL RELATIONS AND PUBLIC POLICY** **3 s.h.**
 Examines the industrial relations functions as they relate to federal, state, and local statutes and industrial policies. Includes OSHA, EEOA, NLRA, LMRA, and LMRDA. Prerequisite: MGMT 324. Fall, annually.
- 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. At least once every two years.
- 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, Ken Traynor, Ph.D., chair

337 Still Hall

Telephone: 393-2617

E-mail address: traynor@clarion.edu

Website: www.clarion.edu/coba/mktg

Professors: Garland, Kim, Ponsford, K. Traynor

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, and outstanding senior marketing students are initiated into Alpha Mu Alpha, the national marketing honorary.

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.) 27 credits

Required: MKTG 461, 465, 469. Twelve credits of marketing electives (four courses) from the following: MKTG 361, 362, 363, 364, 366, 368, 369, 390, 460, 463, 468, and 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.**

Includes the role of consumer motivation; selling and buying functions; physical distribution management; and government regulation and control in marketing and e-marketing. 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.

MKTG 364: PRINCIPLES OF SELLING **3 s.h.**

Introduces the principles of selling. Concerned with influencing, persuading, or leading individuals to buy goods and/or services. E-marketing topics discussed. Useful for anyone considering a career in sales management. Prerequisite: Permission of the instructor. On demand.

MKTG 366: CHANNELS OF DISTRIBUTIONS **3 s.h.**

Examines factors involved in the selection of marketing and e-marketing channels and problems involved in managing the task efficiently. Prerequisite: MKTG 360. On demand.

- MKTG 368: INDUSTRIAL MARKETING AND PURCHASING** **3 s.h.**
Upper-level business students analyze effective approaches to industrial marketing, e-marketing, and purchasing. Combines the conceptual backgrounds and observations of industrial marketing and purchasing into a single course. Prerequisites: MKTG 360; junior standing. On demand.
- MKTG 369: SERVICES MARKETING** **3 s.h.**
Offers upper-level business students the opportunity to study effective approaches to marketing and e-marketing of services. Utilizes a case study, discussion methodology to study the conceptual background of service marketing. Prerequisite: MKTG 360; junior standing. On demand.
- MKTG 390: MARKETING FOR NON-PROFIT ORGANIZATIONS** **3 s.h.**
Analyzes marketing and e-marketing management practices in the public and non-profit sectors. Offers a framework for evaluating non-profit marketing issues. Places particular attention on the role of marketing in helping non-profit organizations improve their effectiveness in achieving objectives and in maintaining or increasing financial viability. Prerequisite: MKTG 360. Annually.
- MKTG 460: SALES MANAGEMENT** **3 s.h.**
Covers all aspects of the management of a sales force, including the selection and testing of sales representatives, training, devising compensation plans and expense accounts, territories, quotas, and evaluations. E-marketing topics discussed. Utilizes case studies and problem-solving techniques. Prerequisite: MKTG 360. On demand.
- MKTG 461: MARKETING RESEARCH** **3 s.h.**
Examines the application of scientific and statistical methods and tools to the solution of marketing and e-marketing problems. Prerequisites: ECON 221, 222, and MKTG 360. Each semester.
- MKTG 463: GENDER ISSUES IN MARKETING** **3 s.h.**
Designed for both men and women. Explores the changing business, e-business, organizational, and marketing environments as they pertain to the increasing number of women in marketing. Examines the special problems and opportunities for women in marketing. Prerequisites: MKTG 360 and junior standing. On demand.
- MKTG 465: MARKETING PROBLEMS** **3 s.h.**
Utilizes the case and/or simulation gaming methods to consider the problems faced by the producer and reseller, including traditional marketing and e-marketing issues. Prerequisites: MKTG 360 and senior standing. Each semester.
- MKTG 468: CONSUMER BEHAVIOR** **3 s.h.**
Examines theories, models, recent research, and research techniques in consumer motivation and decision making, including traditional marketing and e-marketing issues. Prerequisites: MKTG 360 and PSY 211 or permission of the instructor. On demand.
- MKTG 469: INTERNATIONAL MARKETING** **3 s.h.**
Analytical approach to study marketing and e-marketing management decisions involving multinational operations. Focuses on the management of the marketing functions within the multinational corporation. Prerequisite: MKTG 360. On demand.
- MKTG 495: SPECIAL TOPICS IN MARKETING** **3 s.h.**
Presents various current topics that affect marketing practice or theory. Topics differ from year to year as subjects of critical importance arise. Prerequisite: MKTG 360 or permission of the instructor.

Real Estate

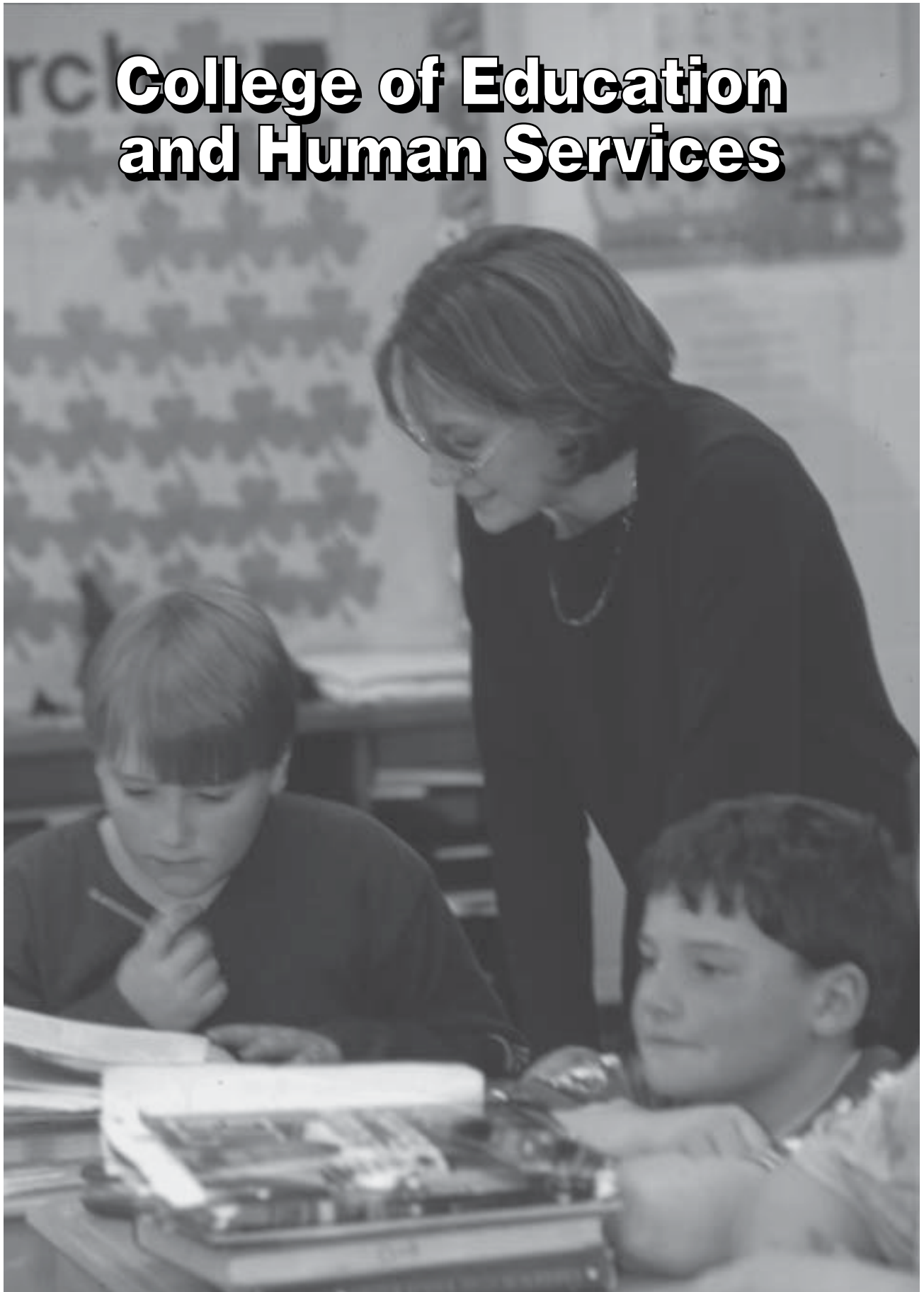
REAL ESTATE, B.S.B.A. - See Finance

Early Start Master of Business Administration Option

The College of Business Administration offers an early start to its M.B.A. program for qualified undergraduate students. Placement in this program is limited to outstanding undergraduate students who have distinguished themselves in their B.S.B.A. degree program. To be admitted, students must have met all M.B.A. admission requirements by the end of the first semester of their senior year and have the approval of the dean. Accepted students will be allowed to enroll in a maximum of six credits of M.B.A. course work for graduate credit during the last semester of their senior

year. Students will be allowed to continue in the M.B.A. program beyond the six credits of graduate course work upon completion of their B.S.B.A. degree. For information about admission requirements for the M.B.A. program or program options available such as the Professional Accountancy Course of Study, please refer to the *Graduate Catalog*. Students interested in the M.B.A. Early-Start option should contact the M.B.A. program director during their junior year of study.

College of Education and Human Services



College of Education and Human Services

Gail F. Grejda, Ph.D., dean

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Telephone: 393-2146

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Website: www.clarion.edu/college/education

Accreditations

American Library Association (ALA)

Association for Childhood Education International (ACEI)

Council for Exceptional Children (CED)

Council on Academic Accreditation of the American Speech Language Hearing Association (ASHA)

International Reading Association (IRA)

National Association for the Education of Young Children (NAEYC)

National Council for Accreditation of Coaching Education (NCACE)

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)

Degree Listing

Teacher Education

Communication Sciences and Disorders (B.S.) pre-professional degree

Early Childhood Education (A.S.), See Venango Campus

Early Childhood Education (B.S.Ed.), Certification for grades N-3

Early Childhood Education/Special Education, Certification

Elementary Education (B.S.Ed.), Certification for grades k-8

Elementary Education/Early Childhood Education (B.S.Ed.), Certification for grades N-6

Elementary Education/Library Science (B.S.Ed.)

Elementary Education/Special Education (B.S.Ed.)

Environmental Education (B.S.Ed.)

Library Science (B.S.Ed.), Certification for grades K-12.

Music Education (B.S.Ed.), Certification for grades K-12.

Reading Specialist, Certification

Special Education (B.S.Ed.), Certification for grades K-12.

Special Education/Early Childhood, Certification

Special Education/Rehabilitative Sciences (B.S.Ed.)

Secondary Education (B.S.Ed.), Certification for grades 7-12:

biology	general science
chemistry	mathematics
communication arts	physics
earth science	social studies (citizenship)
English	Spanish (K-12)
French (K-12)	

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.

Students in any area may choose to obtain a Coaching Verification Certificate (13 credits) or a Coaching Certification/Minor (18 credits). For details, contact HPE Department chair.

Human Services

Communication Sciences and Disorders (B.S.); five-year program leading to the M.S. Degree and Certification grades K-12.

Rehabilitative Sciences (B.S.)

Developmentally Disabled*

Gerontology*

Substance Abuse*

Rehabilitative Services (A.S.)—see Venango Campus

**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: early childhood education, elementary education, environmental education, library science, modern languages, music education, secondary education, special education, and communication sciences and disorders. Each teacher education curriculum is designed to meet the graduation requirements of the university, the certification requirements of the state, and the accreditation standards of various professional groups such as the American Speech-Language-Hearing Association and the National Council for the Accreditation of Teacher Education.

The college is committed to selecting and graduating outstanding students empowered with the knowledge and skills necessary to take their place in society as effective professionals capable of meeting the needs of a diverse population in our rapidly changing society. The college is dedicated to providing these students with programs and environments which:

- (1) promote a global view of education;
- (2) embrace cultural diversity and individual differences within a rural region;
- (3) provide access to academic, pedagogical, cultural, and other relevant knowledge bases;
- (4) support development of interpersonal skills, self-esteem, professional attitudes, and democratic values;
- (5) focus on the roles of schools and human service agencies;
- (6) emphasize the importance of individuals in terms of their unique ethnic, intellectual, and personality traits;
- (7) create linkages between theory and practice;
- (8) use new technologies to enhance learning; and
- (9) remain responsive to societal needs and professional standards.

The overall mission of the college is to develop educators and human service professionals who have received specialized training, mastered a recognized body

of knowledge, internalized standards of excellence, and who are ready to assume responsibility for the exercise of professional judgment and continued professional growth.

Human Services

In the human services field, programs are offered in rehabilitative services at the associate's degree level, rehabilitative sciences and communication sciences and disorders at the bachelor's degree level; and a five-year program leading to the master of science degree. Certification also is available in communication sciences and disorders.

Programs in these human services areas provide students with the professional preparation to work with children, adolescents, and adults in institutional and community settings. Students in these programs are prepared to assist individuals who may experience a range of physical or mental handicaps. 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 knowledge base that underlies all teacher education programs in the college:

Teacher Education Knowledge Base

- I. Knowledge of educational aims
 - A. Purpose of education in a multicultural society
 - B. Purpose for teacher and student actions in the classroom
 - C. Communication with students, colleagues, families, and other members of the community
 - D. Commitment to professionalism
 - E. Promotion of civic and social responsibility
 - F. Leadership role of the professional within educational programs and communities
 - G. Articulation of educational philosophy
 - H. Organization and administration of educational programs
 - I. Impact of societal forces on education
 - J. Historical development and future directions of education
 - K. Commitment to scholarship and independent, lifelong learning
 - L. Interrelationships between humans and their environment
 - M. Role of education in career development
- II. Knowledge of subject matter
 - A. Relevance of content knowledge to teaching
 - B. Understanding of the major domains of content knowledge as reflected in the humanities, social sciences, natural sciences, and mathematics, and their relevance to students' worlds
 - C. Key concepts, generalizations, and principles most relevant to the major domains of content knowledge

- D. Structures of a discipline which guide inquiry and interpretation of information
- E. Transformation of content knowledge into forms of knowledge relevant to students' needs
- F. Appreciation for the contributions of members of a multicultural world to improvement of the human condition
- III. Knowledge of learners
 - A. Theories of human growth and development and the implications for instruction
 - B. Learning styles and their implications for instruction
 - C. Exceptionalities, gender, culture, socio-economic backgrounds, and other student characteristics and their influence on learning and on teacher behaviors
 - D. Role of self-esteem in student learning
 - E. Roles of motivation, aptitude, and interests in learning
- IV. Knowledge of curriculum
 - A. Basic components of curricula
 - B. Relationship among curricula, instruction, and instructional materials
 - C. Historical development and future trends in curricula development
 - D. Interactive relationship among traditions, social forces, regulations, guidelines, and curricula
 - E. Integration of content knowledge, pedagogical skills, and curricula to meet the diverse needs of learners
 - F. Variety of curriculum models
 - G. Development of learning experiences and instructional materials that reflect curricular intent and student needs
 - H. Evaluation of instructional materials and resources in achieving curricular goals
 - I. Role of the professional in adapting and modifying curricula
 - J. Integration of technology into curriculum
- V. Knowledge of pedagogy
 - A. Instructional strategies and techniques derived from educational theories, research, and practice
 - B. Planning of instruction and design of lessons that acknowledge individual differences and learning styles
 - C. Theories of instructional and behavior management and their relation to learning
 - D. Role of evaluation in education and procedures for assessing learning
 - E. Critical thinking, problem-solving, and decision-making skills across the curriculum
 - F. Integration of reading, writing, listening, and speaking skills across the curriculum
 - G. Professional and community resources and their role in supporting instruction
 - H. Role of reflection, self-evaluation, and professional resources in enhancing professional growth
 - I. Relationship between research and educational practices
 - J. Ways to assist students in becoming independent, lifelong learners
 - K. Interpersonal and communication skills to foster collaboration and cooperation among students, parents, other members of the community, and the profession
 - L. Strategies to assist students in developing self-esteem
 - M. Role of technology as it relates to instruction

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, valid for six years of teaching. The student must make applications for the certificate and the certificate must

be issued before graduates may teach in the public schools of Pennsylvania. **Because the recommendation for certification is based upon program requirements in effect when the application is filed, students are urged to do this 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 and Act 151 of 1994 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 and a child abuse clearance (Federal Bureau of Investigation clearance for out-of-state residents). 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. 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 cumulative 3.0 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.

Communication Sciences and Disorders	CSD 125, CSD 150, CSD 156 (CSD 150 is a required prerequisite for CSD 156)
Elementary Education	ED 110, ED 121
Early Childhood Education	ED 110, ED 121
Library Science	LS 255 and either ED 110 or ED 122
Modern Languages	ED 110, ED 122
Music Education	ED 110, ED 122
ALL Secondary majors	ED 110, ED 122
Special Education (K-12)	SPED 110, 220
Rehabilitative Sciences	REHB 110, 227

DUAL CERTIFICATIONS:

Elementary/Early Childhood	ED 110, ED 121
Elementary/Special Ed	ED 110 or ED 121 and SPED 110
Elementary/Library Science	ED 110 or ED 121 and LS 255
Special Ed/Early Childhood	ED 110 or ED 121 and SPED 110

- B. Completion of a speech and hearing screening
- C. ACT 33/151 and ACT 34 clearances
- D. Complete/PASS PRAXIS I tests – Pre-Professional Skills in Reading, Writing, and Mathematics
- 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)
 - Elementary and Early Childhood MATH 111, MATH 211 (pre-requisite for ELED 324)
 - Secondary Mathematics CIS 163
 - Secondary Biology, General Science and Earth and Space MATH 171 + 1 higher level
 - Secondary Chemistry MATH 171 + 1 higher level
 - Secondary Physics MATH 270 + 1 higher level
 - ALL others MATH 112 + 1 higher level

NOTE: MATH 050 DOES NOT count towards general education requirements, graduation, or as a MATH requirement for education majors.

NOTE: All students must complete both English requirements, SCT 113 and both mathematics requirements with a grade of "C" or higher prior to student teaching or intern/externship.

- G. Possession of an appropriate 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. Attainment of a grade of "C" or higher in all required professional courses and all required major courses in an area. Elementary 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.
- C. Removal of any academic, physical, or mental deficiencies identified after admission to a program before being permitted to continue in the program.
- D. 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 (Elementary and ECH), 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) 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 for Elementary and ECH majors, and proficiency courses (where required).

VI. Pennsylvania 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. PRAXIS I (Reading, Writing, Listening, Mathematics); Content Knowledge (Elementary, ECH, and ALL K-12. Majors); Principles of Learning and Teaching (K-6 OR 7-12), and appropriate Specialty Area Exam(s).

NOTE: Test Registration Booklets, which will provide cost of tests and cut-score information, are available in the Office of Field Services (127 Stevens Hall).

- 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. Provide verifications of a valid health examination (within one year) and negative tuberculin test (within two years) at the date the application is processed.
- 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 college dean 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.

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.
3. Students are responsible for their own travel and housing arrangements. Every attempt is made to place students at approved sites within a 40-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 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.
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. A petition to take other courses during this semester must be approved by the Dean's Office.
11. Applicants will report any changes in status or plans to the director, Office of Field Services, whenever they occur.

Communication Sciences and Disorders

Department of Communication Sciences and Disorders, Colleen A. McAleer, Ph.D., chair

113 Keeling Health Center
 Telephone: 393-2581
 E-mail address: cmcaleer@clarion.edu
 Website: www.clarion.edu

Professors: Bauman-Waengler, McAleer, Savage;
Associate Professor: Jarecki-Liu;
Assistant Professor: Linnan, McCarthy; **Instructor:** Janes

Leading to the Bachelor of Science degree in communication sciences and disorders, 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 communication sciences and disorders and makes provisions for teacher certification following the completion of the Master of Science degree. The graduate program in communication sciences and disorders is accredited by the Council on Academic Accreditation of the American Speech-Language-Hearing Association.

COMMUNICATION SCIENCES

AND DISORDERS, (B.S.) 57 credits
Required: CSD 125, 150, 156, 251, 257, 258, 352, 353, 433, 454, 460, 463, 467, 472; ED 110; ELED 323; Psychology elective - 3 credits; SPED 110; and MATH 221 or PSY 230.

Sequence of Courses

FIRST SEMESTER		c.h.	s.h.
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			
SPED 110	Human Exceptionalities	3	3
	OR		
REHB 110	Human Exceptionalities	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

CSD 433 Instrumentation and Hearing Science 3 3

SEVENTH SEMESTER

CSD 460 Hearing Problems 3 3

EIGHTH SEMESTER

CSD 463 Speech Reading and Auditory Training . 3 3

CSD 454 Professional Practicum 3 3

SEVENTH OR EIGHTH SEMESTER

CSD 467 Clinical Observation 3 3

CSD 472 Seminar in Speech Science 3 3

Communication Sciences and Disorders 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. Each semester.

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.

CSD 352: SPEECH DISORDERS

3 s.h.

Begins with an overview of the professions of speech pathology and audiology. Discusses communication disorders using the theoretical basis for service delivery models, communicative development, and cultural differences. Emphasizes diagnosis, team management, and treatment strategies of articulation, voice, resonance, and stuttering disorders. Observation experience is provided. Fall, annually.

CSD 353: ADULT COMMUNICATION DISORDERS

3 s.h.

Reviews the theoretical basis for communication disorders. Emphasizes diagnosis, team management, and treatment strategies of adult language disorders such as aphasia, apraxia, and swallowing disorders.

CSD 357: APPLIED LINGUISTICS

3 s.h.

Study of linguistics fundamentals and theories. Explores specific techniques for analyzing phonological, morphosyntactical, semantic, and pragmatic aspects of speech/language in children and adults. Emphasizes the application of these assessment results to clinical practice. Prerequisite: ENG 263. Fall, annually.

CSD 422: CLINICAL EXTERNSHIP

6 s.h.

Supervised observation of and participation in clinic and/or school environments. Provides observational experience.

CSD 433/533: INSTRUMENTATION AND HEARING SCIENCE

3 s.h.

Deals with instruments used in a speech and hearing program and also covers basic principles of hearing science. Provides some information on psychoacoustics. Spring, annually.

CSD 454: PROFESSIONAL PRACTICUM

3 s.h.

Explores current professional issues and trends in the practice of speech-language pathology and audiology. Includes licensure and certification. Emphasizes ethical/legal restrictions and obligations that influence professional practitioners. On demand.

CSD 460: HEARING PROBLEMS

3 s.h.

Investigates the nature of hearing disorders and the audiological, medical, social, psychological, and educational implications. Fall, annually.

American history, arts, biological science, earth science, economics, literature and language, mathematics, physical science chemistry, physical science, physics, speech, and world geography. Two college-level English (comp/lit) and math courses are required.

Professional Education Courses

The following courses are required of all elementary education majors.

Professional Education Core (18 credits): ED 110, 217, 225, 327, 329, and SPED 418.

Elementary Education Core (17 credits): ED 121, ELED 250, MUS 224, HPE 223, 323, ELED 323, 331.

Elementary Block (15 credits): ELED 324, 325, 326, 330, SCED 322.

Student Teaching (12 credits): ELED 424, 425 (Students electing dual certification are required to take six semester hours of ELED 424 and six semester hours of student teaching in the other area of certification.)

Area of Emphasis

Elementary education majors must complete an area of emphasis of courses selected from the humanities, natural sciences, social sciences, mathematics, computer science, health, or any other field approved by the student's academic advisor.



Early Childhood Education

The 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 teacher candidates are inducted into the early childhood 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 Early Childhood Program.

General Education

The early childhood education major should fulfill the general education requirements of the University (page 50).

Professional Competencies

General education courses may be used to meet the following content competencies required for certification in Pennsylvania: literature and language, mathematics, speech, and English.

Professional Education Courses

The following courses are required of all early childhood education majors:

Professional Education Core (21 credits): ED 110, 121, 217, 225, 327, 329, and SPED 418.

Early Childhood Core (nine credits): ECH 231, 235, HPE 317 and 223

Early Childhood Block (18 credits): ECH 320, 322, 323, 325, 413, and HPE 410.

Elementary Block (15 credits): ELED 324, 325, 326, 330, SCED 322.

Student Teaching (12 credits): ECH 424, 425

Related Electives

Early childhood education majors must earn sufficient credits to complete their degree (128).

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 programs 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, elementary education, 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. Application for admission to the program is through the dean, College of Education and Human Services. The required courses in the non-degree, certification only, program are as follows:

Education (21 credits): ED 110, 122, 225, 327, 329, 333, and SPED 418.

Science Foundations (31 credits): BIOL 155, 165, 156, 166, CHEM 153, 163, 154, 164, PH 251, 252, 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, 426, and Student Teaching.

Math Proficiency (three credits): MATH 221.

Secondary Education

Baccalaureate programs leading to certification in secondary education (7-12) are available in biology, chemistry, communication arts, earth science, English, French, general science, mathematics, physics, social studies, and Spanish. 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 (page 50). 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 (comp/lit) and math courses are required.

Professional Education Requirements (39 credits):

ED 110, 122, 217, 225, 327, 329, 333, ED xxx (Methods in specific discipline), ED 424, 425, and SPED 418.

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 (40 semester hours)

Required Courses: BIOL 155, 165, 156, 166, 201, 202, 203, 382, 476, CHEM 154, 254, 264.

Electives (three required)

Prior to registration the student’s advisor will approve courses taken as biology electives.

In meeting general education requirements (see page 50), 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 and II, also is required.

Chemistry (41 semester hours)

Required: CHEM 151, 161, 152, 162, 211, 251, 261, 252, 262, 257, 270, 271, 351, 354, 361, and 453.

Electives (two required): must be selected from: CHEM 355, 356, 357, 359, 456, 459, 465, 466, 470, and 485.

Additional Requirements: MATH 270, 271 and either PH 251 and 252 or PH 258, PH 268, 259, and 269.

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 also required.

Communication Arts (27 semester hours)

The Communication Arts program prepares prospective teachers of communication-related subjects. Candidates may develop a program that meets their special needs and interests as potential teachers of English, speech, drama, and other communication subjects.

Required (30 credits): ENG 200, 263, 470, 482, SCT 200, 213, 253, 264, and 352.

Additional Requirements: English (18 credits) and communication (six credits). Courses to be approved by the student’s advisor prior to registration.

Earth Science (33 semester hours)

Required: ES 150, 200, 222, 250, 270, 280, 476

10 credits in one of two specializations: Geology or Planetarium Management and supplemental courses: CHEM 154/164, PH 252, BIOL 155/165, and BIOL 156/166

Four credits from CHEM, PH, or BIOL.

Prior to registration, the student’s advisor will approve courses taken as earth and space electives.

In satisfying the general education requirements of the university (pp. 47-48).

English (45 credits)

Required: ENG 199, 262, 263, 221, 222, 225, 226, 227, 228, 470, and 482.

Additional English requirements (15 credits): One from: ENG 200, 207, 202, 301, 303, 304, 306, or 307.

One from: ENG 353, 457, 458, or 459.

Literature electives: nine credits must be taken on the 300/400-course levels.

Non-print media competency is required.

French K-12. (33 semester hours)

Required (33 credits): FR 220, 250 or 251, 252, 265, 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.

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 (43 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 and ES 476 or CHEM 211, CHEM 153, 163, 154, 164, PH 251, 252, ES 150, 200, 270, and 280.

Also Required: Proficiency in precalculus (MATH 171) and statistics (MATH 221 or 321); Successful completion of SCED 460.

Majors in general science should not include BIOL 111, MATH 112, PHSC 111, PHSC 112, and ES 111 in their general education programs (pg. 50). 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 Instruction I certificate in general science.

Mathematics (34 semester hours)

Required courses: MATH 270, 271, 272, 300, 321, 340, 357, 370, 451, 49_, and MATH Electives (300 level or above).

Electives: Prior to registration the student’s advisor will approve courses taken as mathematics electives. Majors should 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, and 371, or 455. Students admitted into both programs should substitute ED 335 for 339.

Physics (40 semester hours)

Required: PH 258, 268, 259, 269, 351, 352, 353, 354, 355, 356, 371, and 455 or 456, 372, 461.

Proficiencies in Other Related Areas: MATH 270, 271, 272, 350, CHEM 153, 163, BIOL and ES.

Social Studies (36 semester hours)

Social Studies Specialization: History Concentration (18 credits)

Required: History Concentration (18 credits), Political Science (six credits), Geography (six credits), a geography elective, ECON 211, 212, ANTH 211, PSY 211, SOC 211. Non-western culture competency (three credits)

Students participating in foreign study programs must complete at least six hours of Spanish or Spanish-American literature at Clarion, regardless of the number of credits earned abroad.

Supplemental Courses (6 credits): ANTH 211 and ENG 457 or ENG 262

Electives: To be approved by advisor.

Spanish K-12. (33 semester hours)

Required (33 credits): SPAN 270, 250 or 251, 252, or 265, 280 or 281, 282, and 301, 352, 360

Students participating in foreign study programs must complete at least six hours of Spanish or Spanish-American literature at Clarion, regardless of the number of credits earned abroad.

Early Childhood Education Courses**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 110 and 121. Each semester.

ECH 235: OBSERVATION AND ASSESSMENT IN EARLY CHILDHOOD SETTINGS 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 plus an additional one-hour field experience requirement. Prerequisites: ED 110 and 121. Each semester.

ECH 320: DEVELOPMENTAL BASES FOR LEARNING AND TEACHING 3 s.h.

Acquisition of understanding and appreciation of advanced child development for young children birth through eight years. Examines the physical, social, emotional, linguistic, and intellectual characteristics of children of diverse cultural backgrounds within and outside of the United States. Focuses on both typical and atypical development as well as challenging conditions. Must be taken concurrently with ECH 322, 323, 325, 413, and HPE 410. Prerequisites: ED 121 and ECH 235. Each semester.

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 320, 323, 325, 413, and HPE 410. Prerequisites: ED 121 and ECH 235. Each semester.

ECH 323: LANGUAGE, 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, (2) creating an integrated curriculum framework for the development of infancy through third grade curriculum standards in order to meet both state and national goals, and (3) impacting the reform movement in education. Must be taken concurrently with ECH 320, 322, 325, 413 and HPE 410. Prerequisites: ED 121 and ECH 235. Each semester.

ECH 325: YOUNG CHILDREN AS THEORY BUILDERS 3 s.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 320, 322, 323, 413 and HPE 410. Prerequisites: ED 121 and ECH 235. Each semester.

ECH 413: INTERACTIONS IN EARLY CHILDHOOD SETTINGS 3 s.h.

Explores knowledge and skills needed to create a caring learning environment that enhances positive interactions between children, parents, staff, instructional teams, and community members. Emphasizes development of the team concept and advancement through communication. Focuses on management of programs for infants, toddlers, and young children. Must be taken concurrently with ECH 320, 322, 323, 325, and HPE 410. Prerequisites: ED 121 and ECH 235. Each semester.

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. Prerequisite: ED 121. Each semester.

ECH 424/425: EARLY CHILDHOOD STUDENT TEACHING 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 and agency setting, students teach under the direction of a cooperating professional and university supervisor. Two field assignments offer diversity in grade levels (N-K, 1-3), 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.

Education Courses**ED 10: INTRODUCTION TO EDUCATION 3 s.h.**

Familiarizes students with education and the role of the school in a multicultural society. Covers historical and philosophical perspectives of education; school organization, governance, and finance; teaching and curriculum in a pluralistic society; and the implications of the schools as an agent for social change. Students explore their career commitment in terms of opportunities and requirements for teaching. Requires planned visits to school board meetings and observation/participation in an elementary or secondary classrooms.

ED 121: HUMAN DEVELOPMENT AND LEARNING 3 s.h.

Acquisition of understanding and appreciation of the cognitive, social-emotional, ecological-systems, and physical-motor dimensions of human growth and changes (birth through adolescence). 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 multiethnic perspectives with respect to holistic development of children and adolescents; involvement with and observation of individuals at various levels of development. Each semester.

ED 122: EDUCATIONAL PSYCHOLOGY 3 s.h.

Examines instructional strategies and education environments in a multicultural society from the perspective of educational psychology. Emphasizes learning theory and student characteristics, including development and motivation as they impact on teacher decision-making. Considers inquiry techniques and statistics in developing empirical data and knowledge.

ED 217: MICROCOMPUTER APPLICATIONS IN THE CLASSROOM 3 s.h.

Introduces pre-service educators (K-12) to microcomputer technology and prepares them to use microcomputers as tools in their classroom. While acquiring computer skills, students explore, use, and demonstrate competence in each of the following areas: word processing, databases, spreadsheets, multimedia/hypermedia, CD-ROM, desktop publishing, software applications, instructional design, telecommunications, and major issues associated with the use of technology in education. Course complements students' specific areas of expertise.

ED 221: DEVELOPMENTAL READING 3 s.h.

Emphasizes improvement in rate, comprehension, reading taste, and independence in reading. Introduces students to varied sources of reading and numerous means of improving reading skills. Includes instruction in theory and an introduction to the possibilities of a supplementary mechanical program for reading improvement. Not recommended for students who have taken GS 100: College Reading/Study Skills.

ED 225: MULTICULTURAL EDUCATION 3 s.h.

Provides prospective teachers with a comprehensive understanding of the complexity of ethnic diversity and pluralism in the United States, and explores pluralism from a global perspective. Analyzes the goals, rationale, meaning, assumptions, and necessary school conditions for effective teaching and learning in multicultural multi-ethnic schools, fostering multicultural competencies and preparing prospective teachers for multicultural multi-ethnic classrooms. Emphasizes interpersonal and pedagogical skills needed for success of teacher and learner.

ED 227: CLASSROOM MANAGEMENT 3 s.h.

Prepares pre-service professional educators to organize and manage instructional environments through a variety of instructional formats and classroom organizational methods, as well as teacher leadership roles. Provides competencies necessary to plan positive instructional activities, organize classroom space and time, direct the acquisition of knowledge and appropriate social behavior, and apply a range of classroom control techniques. Requires participation experiences in the schools.

ED 327: INSTRUCTIONAL STRATEGIES AND MANAGEMENT 3 s.h.

Explores basic skills of planning, designing, implementing, and evaluating the teaching-learning and management process through a clinical approach to teaching. Focuses on teacher effectiveness research and its application to instructional strategies and materials, classroom and behavior management, and educational technology. Includes peer teaching and simulations as integral components of the course. Incorporates variety of instructional strategies: lecture, discussion groups, simulations, peer teaching, and group and individual analysis peer teaching experiences. Prerequisite: ED 121 or 122.

ED 328: METHODS OF TEACHING AND EVALUATING COMMUNICATION ARTS 3 s.h.

Prepares aspiring secondary school teachers in the methods of teaching such language-based subjects as speech, composition, literature, grammar, and reading, and in such language-related, communication-oriented activities as dramatics, journalism, yearbook production, and media use. Observations and teaching experiences in area schools are included. Prerequisite: ED 327. Fall, annually.

ED 329: EDUCATIONAL EVALUATION AND AUTHENTIC 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. Taken concurrently with the methods courses (block) for secondary education majors. Taken prior to the methods courses (block) for elementary education majors. Each semester.

ED 332: BIOMETHODS 3 s.h.

Prepares biology teachers for the secondary schools. Emphasizes formulating objectives, selecting and organizing content, developing skill in using a variety of teaching strategies, and evaluating pupil progress. Stresses the investigatory approach to teaching biology in laboratory, field, and simulated teaching experiences. Includes observations and teaching experiences in area schools. Prerequisite: ED 327. Fall, annually.

ED 333: TEACHING READING IN THE SECONDARY CONTENT AREAS 3 s.h.

Examines techniques for helping secondary students develop reading skills needed to comprehend content-area textbooks. Students will examine those skills in their certification area. Applies skills and competencies developed in ED 225: MULTICULTURAL EDUCATION. Required course for secondary education majors. Requires participation experiences in the schools. Prerequisite: ED 327.

ED 334: METHODS OF TEACHING THE PHYSICAL SCIENCES 3 s.h.

Explores modern concepts of chemistry, physics, and general science teaching and evaluating, emphasizing a laboratory-oriented approach. Presents the philosophy, laboratory techniques, curriculum testing, and extracurricular aspects of secondary school chemistry, physics, and general science teaching. Prerequisite: For secondary chemistry majors—16 s.h. in chemistry; for physics majors—10 s.h. in physics. Includes observations and teaching experiences in area schools. Prerequisite: ED 327. Fall, annually.

ED 335: METHODS OF TEACHING AND EVALUATING PHYSICS AND MATHEMATICS 3 s.h.

Designed for students seeking certification in both physics and mathematics. Contains the modern methods of teaching and evaluating in both these disciplines, as described in the courses listed as ED 334 and 339. Students divide their time between these two methods courses according to schedule presented in consultation with the instructors in these courses. Includes observations and teaching experiences in area schools. Prerequisite: ED 327. Fall, annually.

ED 337: METHODS OF TEACHING AND EVALUATING SOCIAL STUDIES 3 s.h.

Coordinates knowledge of the social science disciplines with various teaching strategies appropriate for instruction at the junior and senior high school levels. Provides a historical perspective, examination of current research, curriculum programs and trends, and methods and materials applicable to unit type social studies teaching in a pluralistic society. Emphasizes the development, selection, management, and evaluation of materials and experiences that foster concept development, inquiry and critical thinking in social studies. Considers addressing the needs of diverse student populations, integrating social studies with other current areas, addressing national and state standards, and the applications of technology. Prerequisite: ED 327. Each semester.

ED 338: 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 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 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. McKeever Center in Sandy Lake, PA, will be a site for this course. Offered for two weeks at a time during Summer Pre-Session.

ED 404: THEORY AND PRACTICE OF HUMANE EDUCATION 3 s.h.

Explores strategies for integrating teaching humane treatment of animals, people, and the environment into existing curricula. May be taken for graduate credit with the approval of the Education Department chair and the instructor. No prerequisites. Summers only, 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. Offered each summer, on demand.

**ED 410/510: DEVELOPMENTALLY AND CULTURALLY APPROPRIATE PRACTICE:
THEORY, RESEARCH, AND PRACTICES 3 s.h.**

Developmentally and Culturally Appropriate Practice (DCAP) is culturally congruent pedagogy as a fundamental framework for early childhood education. DCAP emphasizes teachers' multiple/multi-ethnic perspectives in learning and teaching. It promotes culturally congruent practice for individual learners. Students enrolled in the course will have practically oriented knowledge and skills for DCAP by studying the theory and practices from various educators. It will lead them to create their own instructional approaches for DCAP. Students will learn: (1) Developmentally Appropriate Practice (DAP), critiques of DAP, and changes from DAP to DCAP; (2) current issues and trends on DCAP in education; (3) teacher preparation for DCAP; and (4) teachers' critical creativity in developing an integrated DCAP curriculum. Prerequisite: ED 110 or 121. Annually or 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 417/617: ADVANCED EDUCATIONAL TECHNOLOGY 3 s.h.

Advanced course for undergraduate/graduate students who have a background in computers or who have taken ED 217 or ED 517 at Clarion University. Focuses on development of knowledge and skills in: hardware/software maintenance; instructional design; educational electronic networking; sophisticated applications of integrated software; and educational applications of multimedia, including interactive video CD-ROM, sound, text, and graphics. Prepares teachers to make appropriate decisions regarding the use of technology in their classrooms/schools.

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 2.75, 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 2.75 QPA, and meeting university residence requirements.

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 2.75 QPA, and meeting university residence requirements. 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 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.

Elementary Education Courses**ELED 250: THE INTEGRATION OF AESTHETIC EXPERIENCES
IN THE ELEMENTARY CURRICULUM****3 s.h.**

Explores and applies theory, methods, and strategies for integrating aesthetic experiences with appropriate and relevant academic curriculum. Focuses on visual and performing arts, and performance-based assessment practices appropriate for the elementary classroom. Explores art media and materials related to aesthetic, critical, cultural, and historical experiences to achieve and understanding of the arts within the humanities. Required for elementary and elementary dual certification majors. Field experience component required. Prerequisites: ED 110 and 121. Each semester.

ELED 323: TEACHING OF READING**3 s.h.**

Overview of definitions and basic approaches in elementary school reading instruction. Familiarizes students with techniques, strategies, and materials used to teach reading to preschool, elementary, and middle school children from a variety of cultural backgrounds. Prerequisite: ED 121. Each semester.

ELED 324: TEACHING ELEMENTARY SCHOOL MATHEMATICS**3 s.h.**

Explores current topics recommended by the NCTM. Emphasizes a strong laboratory approach using a variety of concrete, manipulative, mathematical models to teach the mathematical concepts commonly found in grades k-8 Deals with trends in curriculum and with methods for diagnosing and presenting mathematical concepts and skills. Considers recent research that applies to teaching and learning mathematical skills and concepts. Relates and applies psychological theories to the selection and use of strategies, instructional materials, and diagnostic-prescriptive procedures. Prerequisite: MATH 111. Each semester.

ELED 325: TEACHING ELEMENTARY SCHOOL SOCIAL STUDIES**3 s.h.**

Coordinates theory and practice in the teaching of elementary school social studies. Provides a historical perspective, and examines current research, curriculum programs and trends, and methods and materials applicable to unit type social studies teaching in a pluralistic society. Emphasizes the development, selection, management, and evaluation of materials and experiences that foster concept development, inquiry, and critical thinking in social studies. Considers addressing the needs of diverse student populations, integration of content areas, and applications of technology. Prerequisite: ED 327. Each semester.

ELED 326: READING PROBLEMS IN THE ELEMENTARY SCHOOL**3 s.h.**

Explores best practice procedures as recommended by the International Reading Association in providing concepts and skills needed by the elementary classroom teacher to identify and teach students with reading problems. Emphasizes creating effective reading/literacy lessons to meet individual needs of students and to communicate with parents and other professionals. Prerequisite: ELED 323. Each semester.

ELED 330: LANGUAGE ARTS IN THE ELEMENTARY CLASSROOM**3 s.h.**

Reflects an integrated approach for teaching language arts via an integrated curriculum. Mirrors the constructivist approach to teaching. Bases teaching strategies on cognitive, psycholinguistic, and sociolinguistic theories of how children learn-how they learn language, in particular. Applies strategies through language modes of listening, speaking, reading, writing, and visual literacy. Assessment of the language arts modes focuses on performance, product, and process focused approaches. Prerequisite: ED 327. Each semester.

ELED 331: CHILDREN'S LITERATURE 3 s.h.

Surveys children's literature emphasizing development of a knowledge base of the various genres in this discipline, including multi-ethnic. Focuses on the historical background, the development of literature for children, evaluation and selection criteria for various genres, and the most recent areas of expansion in children's literature. Applies knowledge base in the various content area methods courses. Each semester.

ELED 423: LIBRARY PRACTICE IN THE ELEMENTARY SCHOOL 6 s.h.

Professional practicum requires integration and application of instructional, management, and professional knowledge and competencies in library settings in elementary 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.

ELED 424/425: ELEMENTARY STUDENT TEACHING 6 s.h.

Professional practicum requires integration and application of instructional, management, and professional knowledge and competencies in school settings. After an orientation to the school setting, students teach under the direction of a cooperating professional and university supervisor. Two field assignments offer diversity to grade levels (k-3, 4-6), 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.

Science Education Courses**SCED 322: THE TEACHING OF ELEMENTARY SCIENCE 3 s.h.**

Examines methods of presenting science in the elementary school. Provides experiences in learning process, scope and sequence of science concepts, methods of investigation, problem solving, laboratory skills, scientific attitudes, newer curricula, reading materials, observing and working with elementary school children, and developing, teaching, and evaluating lessons. Two hour lecture and two hours laboratory weekly. Each semester.

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, spectrosopes, 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 film development, lighting, use of filters, and composition. Provides students with opportunities to learn and practice techniques for photographing such objects as small animals, birds, flowers, large animals, and other field subjects. Students provide camera and film. Summers only, on demand.

SCED 499: SCIENCE STUDENT TEACHING SEMINAR 1 s.h.

All biology 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/**BIOL/ES 476: SCIENCE, TECHNOLOGY, AND SOCIETY: TOPICS FOR TEACHERS 3 s.h.**

Interdisciplinary course covering 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. Students will be involved in studies and hands-on activities concerning science computer software, testing water for chemical and biological agents, and remote sensing techniques in geology, geography, physics, and medicine. Students investigate and discuss ethical issues and scientific principles concerning computers, energy, nuclear waste, biotechnology, and others. 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.

Health and Physical Education

Department of Health and Physical Education,

William English, Ph.D., chair

104 Tippin Gymnasium

Telephone: 393-2371

E-mail address: wenglish@clarion.edu

Website: www.clarion.edu/departments/hpe

Professors: Leas, Taylor; **Associate Professors:** Baschnagel, Carlson, Sobolewski, Truitt-Bean; **Assistant Professors:** Davis, English, Shannonhouse, **Instructor:** Knepp

Through its general education courses and Intramural Program, 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. Although the department does not offer any programs leading to the bachelor's degree, it does offer an Athletic Coaching Program and a nationally accredited coaching minor.

ACTIVITY AND RECREATION COURSES

HPE 102	Credit for Athletic Participation	1
HPE 121	Walking for Fitness	1
HPE 123	Relaxation Skills for Health and Fitness	1
HPE 125	Introduction to Bicycling	1
HPE 131	Beginning Swimming	1
HPE 135	Aqua-Aerobics	1
HPE 141	Badminton	1
HPE 142	Bowling	1
HPE 143	Golf	1
HPE144	Racquetball (men's rules)	1
HPE 145	Racquetball (women's rules)	1
HPE 147	Beginning Tennis	1
HPE 150	Canoeing	1
HPE 161	Basketball (men's rules)	1
HPE 162	Basketball (women's rules)	1
HPE 163	Volleyball (men's rules)	1
HPE 164	Volleyball (women's rules)	1
HPE 170	Step Aerobics Challenge	1
HPE 181	Adapted Physical Education	1
HPE 185	Physical Fitness and Conditioning	1
HPE 186	Physical Fitness Through Strength Training	1
HPE 191	Camping and Outdoor Recreation	1
HPE 230	Basic Water Safety—Emergency Water Safety	1
HPE 231	Intermediate Swimming	1
HPE 247	Intermediate Tennis	1
HPE 330	Lifeguard Training	1

ELECTIVE

HPE 370	Women in Sports	3
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HEALTH AND FIRST AID COURSES

HPE 111	Health Education	2
HPE 235	Introduction to Elementary Health Concepts and Promotion	3
HPE 314	Cardiopulmonary Resuscitation	1
HPE 317	First Aid and Safety	2
HPE 333	Fitness for Wellness	3
HPE 334	Food, Fitness, and Weight Management	3

HPE 335	Teaching Methods in the Elementary Curriculum	3
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ELEMENTARY MAJOR COURSES

HPE 223	Physical Education for Elementary Majors	1
HPE 323	Modern Curriculum and Methods in Elementary Physical Education	1
HPE 410	Motor Development and Learning	3

SPORTS MANAGEMENT TRACK

HPE 380	Foundations of Sports in American Society	3
HPE 430	Sports Management	3

Athletic Coaching Program and National Certification Level III

The athletic coaching verification program, the coaching concentration and the coaching concentration plus, are specialized curricula established for individuals who intend to coach in interschool programs, youth sport or community recreation programs. This area of study 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 minimum requirements for the athletic coaching program (VERIFICATION) is 13 credits, with 15 credits required for (CONCENTRATION) in coaching and 18 credits required for a successful completion of the nationally accredited level III athletic coaching certification program (CONCENTRATION PLUS).

ATHLETIC COACHING VERIFICATION 13 credits

Required:

HPE 314	Cardiopulmonary Resuscitation	1
HPE 406	Athletic Injuries: Prevention, Recognition, and Evaluation	3
HPE 407	Physiological Foundations of Coaching	3
HPE 408	Principles and Problems of Athletic Coaching	3
HPE 409	Kinesiological Foundations of Coaching ...	3

ATHLETIC COACHING CONCENTRATION 13 credits

Required: The courses listed above for Athletic Coaching Verification with **one elective** selected from the following:

HPE 333	Fitness for Wellness	3
HPE 334	Food, Fitness, and Weight Management	3
HPE 351	Theory and Techniques of Coaching Basketball	2
HPE 352	Theory and Techniques of Coaching Baseball and Softball	2
HPE 354	Theory and Techniques of Coaching Football	2

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

HPE 409	Kinesiological Foundations of Coaching ...	3
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NATIONAL CERTIFICATION IN ATHLETIC COACHING

LEVEL III 18 credits

Required: Must include the courses above for the Athletic Coaching Verification plus the following:

Theory and Techniques course	2
Athletic Coaching Internship	3

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 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's second season of team participation.	
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 125:	INTRODUCTION TO BICYCLING	1 s.h.
	Emphasizes proper fit of bike to rider, skills, and techniques of riding, basic bike maintenance, and aerobic fitness. Bicycles provided, helmet required. Each semester.	
HPE 131:	BEGINNING SWIMMING	1 s.h.
	For students who cannot swim one length of the pool. Consists of drown-proofing and elementary back, breast, and freestyle strokes.	
HPE 135:	AQUAAEROBICS	1 s.h.
	Achieves various aspects of physical fitness in a water medium.	
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.

Athletic Coaching Program Courses

The program is designed for all students. Non-education majors have found the program to be an excellent alternative to their areas of concentration. Any student with an interest in any related future field in fitness, athletics, health, physiology, health clubs, and equipment will find the program an additional dimension to their undergraduate major.

The athletic coaching verification program, the coaching concentration, and the coaching concentration plus, are specialized curricula established for individuals who intend to coach in interschool programs, youth sport, or community recreation programs. This area of study 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 minimum requirements for the athletic coaching program (VERIFICATION) is 13 credits, with 15 credits required for (CONCENTRATION) in coaching and 18 credits required for a successful completion of the nationally accredited level III athletic coaching certification program (CONCENTRATION PLUS).

- HPE 351, 352, 354:** **THEORY AND TECHNIQUES OF COACHING**
Examines theories and techniques of coaching specific sports. Covers rules and regulations, fundamentals, organizational principles, specific conditioning programs, scouting, technical tactics and other topics.
- HPE 351:** **THEORY AND TECHNIQUES OF COACHING BASKETBALL** **2 s.h.**
On demand.
- HPE 352:** **THEORY AND TECHNIQUES OF COACHING BASEBALL AND SOFTBALL** **2 s.h.**
Fall, even-numbered years.
- HPE 354:** **THEORY AND TECHNIQUES OF COACHING FOOTBALL** **2 s.h.**
Fall, even-numbered years.

Students interested in completing a concentration in athletic coaching should choose at least one of the above theory and technique courses or one of the following electives:

- HPE 333** **FITNESS FOR WELLNESS** **3 s.h.**
Provides students with knowledge, skills, and strategies in stress management and health-related fitness. Stresses skills in psychophysiological regulation, exercise, and nutrition design. Emphasizes adherence issues of recognition, identification, and remediation. Pre-requisite: successful completion of HPE 111 Health Education. Offered: annually, Fall.
- HPE 334** **FOOD, FITNESS, AND WEIGHT MANAGEMENT** **3 s.h.**
Provides students with knowledge, skills, and strategies in diet management, both qualitatively and quantitatively. Emphasizes skills in personal dietary design and assessment. Also covers dietary needs and problems of special populations. Pre-requisite: successful completion of HPE 111 Health Education. stress management and health-related fitness. Stresses skills in psychophysiological regulation, exercise, and nutrition design

Coaching Courses (Required)

- HPE 314:** **CARDIOPULMONARY RESUSCITATION** **1 s.h.**
Required for the Athletic Coaching Program. 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 406:** **ATHLETIC INJURIES: PREVENTION, RECOGNITION, AND EVALUATION** **3 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.

HPE 407: **PHYSIOLOGICAL FOUNDATIONS OF COACHING** **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.

HPE 408: **PRINCIPLES AND PROBLEMS OF ATHLETIC COACHING** **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.

HPE 409: **KINESIOLOGICAL FOUNDATIONS OF COACHING** **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.

Elective

HPE 370: **GENDER IN SPORTS** **3 s.h.**
 Provides students with a comprehensive, multidisciplinary analysis of the problems, patterns, and processes associated with the involvement of women in sports.

Elementary/Early Childhood Major Courses

HPE 223: **PHYSICAL EDUCATION FOR ELEMENTARY MAJORS** **1 s.h.**
 Required of all students majoring in elementary education. Emphasizes modern physical education skills and activities of the elementary child. Each semester.

HPE 323: **MODERN CURRICULUM AND METHODS IN
ELEMENTARY PHYSICAL EDUCATION** **1 s.h.**
 Required of all students majoring in elementary education. Gives the elementary major practical experience in integrating physical activities into academic learning. Each semester.

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. 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.**
 Required for the Athletic Coaching Program. 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 333: **FITNESS FOR WELLNESS** **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.

HPE 334: **FOOD, FITNESS AND WEIGHT MANAGEMENT** **3 s.h.**
 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.

HPE 335: **TEACHING METHODS IN THE ELEMENTARY HEALTH CURRICULUM** **1 s.h.**
 Designed for the elementary education major who may eventually work in a classroom setting. Prepares potential teachers to: (a) teach health education in a knowledgeable and effective manner, (b) demonstrate approaches for integrating health instruction with other topics, and (c) familiarize the elementary major with current health curricula. Course offered on demand.

HPE 415: HIV/AIDS EDUCATION 3 s.h.

Experience-based course covers both the facts and the emotional issues involved in teaching about HIV infection. Psychosocial issues covered by the course include values, attitudes, and beliefs and their effects on teaching and learning about HIV, drugs and drug use, and sex and sexuality. Emphasizes helping students develop the skills needed to make AIDS presentations with a non-judgmental perspective and sensitivity to the cultural diversity in their communities. Upon successful completion of the course, students are Red Cross certified to present facts, answer questions, and identify resources for people who want more information on HIV infection, including AIDS. Prerequisite: HPE 111 or permission of the instructor. Course offered on demand.

Sports Management Track

The Sports management track is a joint venture between the Department of Administrative Science and Health and Physical Education. Components to the management major and sports management track include the following: general education, lower division business core, upper division business core, management major including sports management track, and free electives.

HPE 380: FUNDAMENTAL SPORTS IN AMERICAN SOCIETY 3 s.h.

Covers the role of sports in American society. Includes examination of the fundamental changes in the organization, rules, management, finances, and ethos of sports. Also examines the social, cultural, economical, philosophical, and anthropological foundations that have shaped American sport. Every other semester.

HPE/MGMT: 430: SPORT 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. Every other semester.

Library Science**Department of Library Science,****Andrea Miller, Ph.D., chair**

209 Carlson Library

Telephone: 393-2378

E-mail address: amiller@clarion.edu

Website: www.clarion.edu/edu-humn/libsci

Professor: Vavrek; **Associate Professors:** Buchanan, Harhai, Maccaferri, Miller; **Assistant Professor:** Doku

Library science is a dynamic field that 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). The demand for school library media specialists is especially high at present. 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 masters 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 masters degree—permitting students in any degree program to progress from a bachelor degree to a masters 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 Lambda Sigma, Clarion's honorary library science fraternity, and in student chapters of both the American Library Association and the Special Librarian Association.

The Department of Library Science offers one undergraduate major, participates in two dual majors, 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 134-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 34 credits

ED 110	Introduction to Education	3
ED 122	Educational Psychology	3
ED 217	Microcomputer Applications in the Classroom	3
ED 225	Multicultural Education	3
ED 327	Instructional Strategies and Management	3
ED 329	Educational Evaluation and Authentic Assessment	3
ED 333	Teaching Reading in the Secondary Content Areas	3
OR		
ELED 323	Teaching of Reading	3
ED 423	Library Practice in the Secondary School	6
ELED 423	Library Practice in the Elementary School	6
LS 420	Student Teaching Seminar	1

LIBRARY SCIENCE SPECIALIZATION 33 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 Adolescents	3
LS 357	Organization of Information	3
LS 358	Media for Children	3
LS 361	Administration of Libraries	3
LS 385	Automation in the Library Media Center	3
LS 432	Colloquium	0
LS 459	Media, Methods, and the Curriculum	3
LS 490/ SPED 490	Library Materials and Services for Special Audiences	3

Students must also complete 18 credits of liberal arts electives. Full-time students must enroll in LS 432, Colloquium, each semester; and all library science specialization courses must be completed prior to student teaching.

Elementary and secondary education majors may elect a dual major in library science. The B.S.Ed. in Library Science/Elementary Education requires a total of 145 credits. The number of credits required for a dual secondary education/library science major varies depending on the secondary certification specialization. In addition to the

requirements for their elementary education or secondary education major, students complete 33 credits of library science specialization courses, plus 13 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 60 hours during three weeks in school library media centers. The prescribed early field experience courses are:

LS 432	Colloquium
LS 459	Media, Methods, and the Curriculum
LS 490	Library Materials and Services for Special Audiences

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.

The department also participates in programs that qualify students for entry-level positions in some public and special libraries. The B.S.B.A. in Management/Library Science is offered in conjunction with the Department of Administrative Science; a concentration in library science is offered in conjunction with the College of Arts and Sciences. The latter qualifies students for certification as provisional public librarians in Pennsylvania. These programs are described elsewhere in this catalog.

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 computer 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 technology on libraries.

LS 257: BASIC INFORMATION SOURCES AND SERVICES**3 s.h.**

Examines traditional and technological approaches to locating information. Analyzes the criteria for selection of reference materials and the examination of reviewing media for new reference aids. Explores organization of reference service. Includes study of a selected list of reference works.

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 the establishment of policies and criteria for the selection of and evaluation of book and nonbook materials. Biennial.

LS 356: MEDIA FOR ADOLESCENTS**3 s.h.**

Surveys literature and other resources for young adults, including principles related to the selection, evaluation, and use of such materials. Study of the reading interests of junior and senior high school aged persons, the characteristics of young adult literature; and methods of introducing young adults to books and nonbook resources, including electronic products and services. Examines techniques of developing/preparing booktalks, reviews, reader advisory services, and other programs for young adults, with attention being paid to underserved and special needs groups. Prerequisite: LS 258 or permission of the instructor.

- LS 357: ORGANIZATION OF INFORMATION 3 s.h.**
Examines organization of print and non-print materials for effective service, principles and methods of descriptive cataloging, and the structure and application of the Dewey Decimal Classification, the Library of Congress Classification, and standard subject authority lists. Includes study of the use of printed cards and the utilization of other work simplification techniques; filing rules; and maintenance of library catalogs—shelf lists, divided and dictionary card catalogs, and the printed book catalog. Biennial
- 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. Prerequisite: LS 258 or permission of the instructor.
- 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.
- LS 385: AUTOMATION IN THE LIBRARY MEDIA CENTER 3 s.h.**
Introduces the use of automation in the library media center. Covers the selection of computer hardware and software for instructional purposes; use of automated library systems for library management activities such as circulation, acquisition, and cataloging; and the importance of computer networks to areas including resource sharing, professional development, and fiscal planning. Prerequisite: ED 217 or permission of instructor.
- LS 420: STUDENT TEACHING SEMINAR 3 s.h.**
Students meet and discuss practical and applicable issues as they occur and relate to their field experiences. Concurrent with student teaching.
- LS 432: COLLOQUIUM no credit**
Lectures, discussions, and film demonstrations presented by visiting lecturers and members of the staff. Required of all library science students. Each semester.
- 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.**
Examines the role of library media specialist as a collaborator with other educators in accordance with the 1998 national Information Power standards. Students design units of instruction in which information literacy skills are taught while meeting content standards. Analyzes the process of instructional design when planning for any instructional event. Includes an intensive 60-hour field experience component that occurs in local school library media centers. Prerequisites: LS 257, 258, either 356 or 358, and ED 327.
- 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 every semester.
- LS/SPED 490: LIBRARY MATERIALS AND SERVICES FOR SPECIAL AUDIENCES 3 s.h.**
Students explore the nature and needs of special groups of library users in order to develop collections of materials and to design programs of services to accommodate those needs. Examines special needs in all types of library settings—academic, public, school, and special—particularly the unique characteristics and instructional needs of exceptional learners who use the school library. Investigates bibliotherapy and other techniques to determine their validity for the exceptional learner. Requires field experience. Fall, annually.
- LS 491: BUSINESS REFERENCE SOURCES AND SERVICES 3 s.h.**
Surveys the literature and services common in a business library or department of business information. 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.

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 certification in all of the following areas: elementary vocal, instrumental, and general music; junior high/middle school music programs, including general music, instrumental, and vocal classes; and secondary school music programs, including all vocal and instrumental activities, general music, and elective academic courses. 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 are also attending graduate schools. Education graduates have secured teaching positions in districts in at least 10 different states, private and parochial schools, and part-time church positions. 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. Several dates are scheduled throughout the academic year. Contact the Department of Music for additional information.

Program Requirements

General Education

The general education distribution for all students in the college is presented on page 50. Teacher education selection and retention standards are listed on pages 153-155.

PROFESSIONAL EDUCATION		s.h.
ED 110	Introduction to Education	3
ED 122	Educational Psychology	3
ED 418	Exceptionalities in the Regular Classroom ..	3
ED 432	Student Teaching in Music	6
ED 433	Student Teaching in Music	6
MUS 240	Introduction to Music Technology	3
MUS 333	Elementary Music Methods	3
MUS 362	Instrumental Methods	2
MUS 363	Vocal Methods	2
TOTAL		31

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 227	Music Theory IV	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	3
MUS 347	20th Century Music	3
MUS 360	Basic Conducting	1
MUS 365	Instrumental Conducting	2
OR		
MUS 366	Choral Conducting	2
MUS 370	Orchestration/Arranging	2

KEYBOARD AND VOICE PROFICIENCY

PIANO (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

VOICE (REQUIRED OF ALL BUT VOICE MAJORS*)

MUS 162	Voice Class I	1
MUS 163	Voice Class II	1

*Students whose applied area is voice or piano will substitute an approved music elective (three credits).

PIANO COMPETENCY TEST

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.

INSTRUMENTAL TECHNIQUES

	s.h.	
MUS 241	Woodwind Class I	1
MUS 242	Woodwind Class II	1
MUS 243	Brass Class	1
MUS 244	String Class	1
MUS 245	Percussion Class	1

APPLIED MUSIC (LESSONS)

All matriculated music majors must elect applied music credits on their major instrument/voice each semester in residence.

PERFORMING ORGANIZATIONS

No more than six credits can be counted toward graduation requirements.

Total credits in specialization sequence: 49-50

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. All students are strongly encouraged to perform.

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 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 the semester the recital is to be performed.



Nursing

Information of certification as a school nurse in Pennsylvania is included under the School of Nursing (see page 196).

Special Education and Rehabilitative Sciences

Department of Special Education and Rehabilitative Sciences, Pamela J. Gent, Ph.D., chair

109 Special Education Center

Telephone: 393-2051

E-mail address: gent@clarion.edu

Website: www.clarion.edu/departments/spec

Professors: Clary, Feroz, Gent, Huwar; **Associate Professors:** Kilwein, Krouse; **Assistant Professors:** Sabousky, Sentner, Stearns, Turner

B.S. Degree in Special Education

Special educators are teachers who have received specialized training and licensure to teach students with cognitive, behavior, and/or physical/health disabilities in N-12 school settings. Students with cognitive, behavior, and/or physical health disabilities include students who are identified as learning disabled, mentally retarded, autistic, emotionally disturbed, severely disabled, and physically disabled. 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.

Clarion's Department of Special Education and Rehabilitative Sciences 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 the 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 semester-long student teaching experience. Student teaching generally occurs in districts in the Clarion region, but also includes sites in urban areas and in Europe. Acceptance into the Special Education Program is contingent upon passing scores on the Praxis I, QPAs in the first four semesters at Clarion, and Act 33 and Act 34 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. The student also is introduced to human relations and communications skills important to the professional special educator through a combination of didactics, simulations, and role-plays.

The student next focuses 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 phases, 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 the joint supervision and guidance of a selected cooperating professional and department faculty. Students concurrently engage in a professional seminar where they have the opportunity to reflect on and relate their knowledge of theory and principle to their actual experiences in the field.

Professional Education and Area of Specialization

ED	110	Introduction to Education	3
ED	122	Educational Psychology	3
ED	217	Microcomputer Applications in the Classroom	3
ELED	323	Teaching of Reading	3
ELED	324	Teaching of Elementary School Mathematics	3
SPED	110	Human Exceptionalities	3
SPED	115	Human Relations	3
SPED	220	Nature of MR	3
SPED	227	Neurological Impairments and Physical Disorders	3
SPED	230	Social and Emotional Disturbances	3
SPED	235	Specific Learning Disabilities	3
SPED	320	Educational Assessment	3
SPED	345	Secondary, Transitional, and Vocational Services	3
SPED	380	Special Reading and Mathematics Instruction	3

SPED	411	Educational Assessment Practicum	1
SPED	415	Instructional Development and Strategies for Mildly/Moderately Handicapped	6
SPED	420	Instructional Development and Strategies for Severely/Profoundly Multi-Handicapped	6
SPED	425	Behavior Management in Special Education Settings	3
SPED	450	Student Teaching	12
SPED	455	Professional Seminar	2
RELATED ELECTIVES		11

B.S. Degree in Rehabilitative Sciences

The Rehabilitative Sciences Program is an interdisciplinary program that combines the resources of the departments of biology, psychology, sociology, health and physical education, and nursing with the resources of the Department of Special Education and Rehabilitative Sciences. The program prepares students to assume professional 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, day service directors, rehabilitation program specialists, qualified mental retardation personnel, substance abuse prevention specialists, activities directors, and similar positions.

Clarion’s Department of Special Education and Rehabilitative Sciences is highly regarded throughout Pennsylvania as a producer of high-quality rehabilitation specialists. 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 internship in a human service agency. Internship opportunities are available throughout the region. Acceptance into the Rehabilitative Sciences Program is contingent upon QPAs in the first four semesters at Clarion and Act 33 and Act 34 clearances.

Program Requirements

Area of Specialization

I. Rehabilitative Science Core—41 credits

REHB	110	Human Exceptionalities	3
REHB	115	Human Relations	2
REHB	227	Neurological Impairments and Physical Disorders	3
REHB	460	Models of Human Services Delivery Systems	3
REHB	470	Assessment and Intervention Strategies	3
REHB	475	Administering Rehabilitation Delivery Systems	3
SPED	230	Social and Emotional Disturbances	3
SPED	425	Behavior Management in Special Education Settings	3
PSY	354	Abnormal Psychology	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

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

CSD	125	Introduction to Communication Disorders ..	3
SPED	220	Nature of Mental Retardation	3
HPE	333	Fitness for Wellness	3
SPED	420	Instructional Development and Strategies for Severely/Profoundly Multi-Handicapped ...	3
REHB	345	Secondary, Transitional and Vocational Services	3
REHB	495	Field Experience in Rehabilitative Sciences ..	6
REHB	495	Field Experience in Rehabilitative Sciences ..	6
RELATED ELECTIVES		15

B. Gerontology Concentration

BIOL	257	Biology of Aging	3
SOC	353	Sociology of Aging	3
NURS	365	Health Promotion for the Elderly	3
PSY	464	Theories of Counseling	3
PSY	467	Gerontological Psychology	3
REHB	495	Field Experience in Rehabilitative Sciences ..	6
REHB	495	Field Experience in Rehabilitative Sciences ..	6
RELATED ELECTIVES		12

C. Substance Abuse Concentration

PSY	321	Psychology of Adolescence	3
HPE	333	Fitness for Wellness	3
SOC	351	Contemporary Social Problems	3
SOC	361	Sociology of Deviance	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
RELATED ELECTIVES		9

D. Open Sequence—27 credits

Students are required to take nine credit hours from each of three of the following fields: psychology, sociology, mathematics, biology, chemistry, computer science, political science, special education/rehabilitative sciences, speech pathology/audiology, or modern languages.

Special Education and Rehabilitative Sciences Dual Emphasis

Students enrolled in either the special education or rehabilitative sciences curriculum have a unique opportunity to obtain a second degree during the course of their undergraduate study. By extending their study approximately one extra semester and carefully selecting free electives and general education courses, students can obtain degrees in both special education and rehabilitative sciences. This degree permits graduates to become Pennsylvania certified to teach in special education as well as work in community human service agencies. In addition to the general education requirements for all students, the following constitutes the required courses for the dual degree.

Area of Specialization

1. *SPECIAL EDUCATION*—57 CREDITS

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	3
SPED 235	Specific Learning Disabilities	3
SPED 320	Educational Assessment	4
SPED 345	Secondary, Transitional, and Vocational Services	3
SPED 380	Special Reading and Mathematics Instruction	3
SPED 411	Educational Assessment Practicum	1
SPED 415	Instructional Development and Strategies for Mildly/Moderately Handicapped	6
SPED 420	Instructional Development and Strategies for Severely/Profoundly Multi-Handicapped	6
SPED 425	Behavior Management in Special Education Settings	3
SPED 450	Student Teaching	6
SPED 450	Student Teaching	6
SPED 455	Professional Seminar	2

2. *REHABILITATIVE SCIENCES*—20 CREDITS

REHB 460	Models of Human Services Delivery Systems	3
REHB 470	Assessment and Intervention Strategies	3
REHB 475	Administering Rehabilitation Delivery Systems	3
COOP 377	Co-op in Rehabilitative Sciences	3
SW 211	Principles of Social Work	3
SW 212	Social Work with Groups	3
HPE 317	First Aid and Safety	2

3. *PROFESSIONAL EDUCATION*—15 CREDITS

ED 110	Introduction to Education	3
ED 122	Educational Psychology	3
ED 217	Microcomputer Applications in the Classroom	3
ELED 323	Teaching of Reading	3
ELED 324	Teaching Elementary School Mathematics	3

4. *REHABILITATIVE SCIENCES SPECIALIZATION OPTIONS* (select one of the following)A. *DEVELOPMENTALLY DISABLED*—9 CREDITS

HPE 333	Fitness for Wellness	3
REHB 495	Field Experience in Rehabilitative Sciences	6

B. *GERONTOLOGY*—21 CREDITS

BIOL 257	Biology of Aging	3
SOC 353	Sociology of Aging	3
NURS 365	Health Promotion for the Elderly	3
PSY 464	Theories of Counseling	3
PSY 467	Gerontological Psychology	3
REHB 495	Field Experience in Rehabilitative Sciences	6

C. *SUBSTANCE ABUSE*—24 CREDITS

PSY 321	Psychology of Adolescence	3
HPE 333	Fitness for Wellness	3
SOC 351	Contemporary Social Problems	3

SOC 361	Sociology of Deviance	3
REHB 405	Substance Abuse	3
REHB 410	Prevention and Treatment Strategies in Substance Abuse	3
REHB 495	Field Experience in Rehabilitative Sciences	6

D. *GENERAL STUDIES*

Required electives—27 credits

Students are required to take nine credit hours from each of three of the following fields: psychology, sociology, mathematics, biology, chemistry, computer science, political science, special education/rehabilitative sciences, speech pathology/audiology, or modern languages.

Related electives—12 credits

Elementary Education/Special Education

With careful planning, students can complete programs leading to certification in both special education and elementary education in 10 semesters or four years and two summers, thereby becoming eligible to teach in both regular and special classrooms. The dual certification also will help students to meet the challenges of inclusion. In addition, several states now require dual certification to teach individuals with disabilities. Students interested in this program should contact the chair of the Department of Special Education and Rehabilitative Sciences or Education for more information.

Special Education/Early Childhood

Many employment opportunities exist in the state of Pennsylvania and throughout the country in pre-school special education programs. The College of Education and Human Services offers a program of study which will provide students interested in working with pre-school 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 from nursery to grade 12, early childhood programs from pre-school to grade three, as well as in special education infant stimulation and pre-school programs. This program offers students an outstanding opportunity to obtain professional employment in infant and pre-school programs, as well as in special education. Completion of the following requirements will lead to dual state certification in special education and early childhood education:

I. *PROFESSIONAL EDUCATION*—37 credits

ECH 231	Creativity in Early Childhood Curriculum	3
ED 110	Introduction to Education	3
ED 121	Human Development and Learning	3
ED 217	Microcomputer Applications in the Classroom	3
SPED 110	Human Exceptionalities	3
SPED 115	Human Relations	3
SPED 220	Nature of Mental Retardation	3
SPED 227	Neurological Impairments	3

and Physical Disorders 3

SPED 230 Social and Emotional Disturbances 3

SPED 235 Specific Learning Disabilities 3

SPED 320 Educational Assessment 4

SPED 345 Secondary, Transitional,
and Vocational Services 3

SPED 380 Special Reading and Mathematics
Instruction 3

II. EARLY CHILDHOOD BLOCK—II CREDITS

ELED 323 Teaching of Reading 3

ELED 324 Teaching Elementary School
Mathematics 3

ELED 331 Children’s Literature 2

ED 327 Instructional Strategies and
Management 3

III. ELEMENTARY BLOCK—15 CREDITS

SCED 322 Teaching of Elementary Science 3

ELED 325 Teaching Elementary School
Social Studies 3

ELED 326 Reading Problems in the
Elementary School 3

ELED 330 Language Arts in the Elementary
Classroom 3

ECH 420 Issues and Advocacy in
Early Childhood Education 3

Rehabilitative Science Courses

REHB 110: HUMAN EXCEPTIONALITIES 3 s.h.

A study of the causes, characteristics, and implications—educational, social, and vocational—of people who are exceptional because of intelligence, physical development, behavior, vision, hearing, and speech. Acquaints prospective professional personnel with vocational opportunities in special education and rehabilitation. Each semester on Clarion Campus, and Fall Semester at Venango Campus. Multicultural education will be applied.

REHB 115: HUMAN RELATIONS 3 s.h.

Enables students to develop and apply human relations and communications skills. Students explore the roles of special education and rehabilitative service providers in the diverse programs provided to exceptional individuals. Students develop ability to communicate feelings and thoughts in oral and written forms, to interact effectively and sensitively in both individual and group situations, and to apply interpersonal skills in communicating with others in special education and rehabilitation settings. Each semester on Clarion Campus; Fall Semester at Venango Campus.

REHB 227: NEUROLOGICAL IMPAIRMENTS AND PHYSICAL DISORDERS 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. Prerequisite: REHB 110. Each semester on Clarion Campus, and Fall Semester at Venango Campus.

REHB 345: SECONDARY, TRANSITIONAL, AND VOCATIONAL SERVICES 3 s.h.

Examines issues and options relative to secondary educational and vocational services for the disabled. Prerequisites: REHB 227 and SPED 220. Each semester.

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 460: MODELS OF HUMAN SERVICES DELIVERY SYSTEM 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. Prerequisite: REHB 227 and SPED 230. Fall, annually

REHB 470/570: 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 475/575: ADMINISTERING REHABILITATIVE DELIVERY SYSTEMS 3 s.h.

A study of the business and personnel aspects of functioning in and managing human service 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 6 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, 470, and 475. Each semester.

Waiver: Change in prerequisite may be made with approval of the department chair and course instructor.

Special Education Courses

- SPED 10: HUMAN EXCEPTIONALITIES** **3 s.h.**
 A study of the causes, characteristics, and implications—educational, social, and vocational—of people who are exceptional because of intelligence, physical development, behavior, vision, hearing, and/or speech. Acquaints prospective professional personnel with vocational opportunities in special education and rehabilitation. Each semester on Clarion Campus, and Fall Semester at Venango Campus. Multicultural education will be applied.
- SPED 15: HUMAN RELATIONS** **3 s.h.**
 Enables students to develop and apply human relations and communications skills. Students explore the roles of special education and rehabilitative service providers in the diverse programs provided to exceptional individuals. Students develop their ability to communicate feelings and thoughts in oral and written forms, to interact effectively and sensitively in both individual and group situations, and to apply interpersonal skills in communicating with others in special education and rehabilitation settings. Each semester on Clarion Campus; Fall Semester at Venango Campus.
- SPED 220: NATURE OF MENTAL RETARDATION** **3 s.h.**
 Comprehensive study of the biological, psychosocial, and educational implications of retarded mental development, including a consideration of etiology; assessment and diagnosis; educational programs, including preschool and postschool; multicultural issues; adult social and vocational adjustment; national and local programs; and research. Prerequisite: SPED 10, 115. Each semester on Clarion Campus, and Spring Semester at Venango Campus. Multicultural education will be applied.
- SPED 227: NEUROLOGICAL IMPAIRMENTS AND PHYSICAL DISORDERS** **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. Prerequisite: SPED 10, 115. Each semester on Clarion Campus, and Fall Semester at Venango Campus.
- 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 10, 115, 220, and 227. Each semester.
- SPED 235: 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. Prerequisites: SPED 10, 115, 220, and 227. Each semester.
- SPED 245: BEHAVIOR MANAGEMENT** **3 s.h.**
 Provides people with knowledge and skills to analyze instructional settings, organize learners for instruction, and maintain a supportive learning climate for persons with disabilities. Prerequisite: SPED 10. Offered at Venango Campus only.
- SPED 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: SPED 230, 235, and 245. Offered at Venango Campus only.
- 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.
- SPED 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 and SPED 230, 235, and 245. Offered at Venango Campus only.
- SPED 320: 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 220, 230, 235, and 227. Each semester
- SPED 345: SECONDARY, TRANSITIONAL, AND VOCATIONAL SERVICES** **3 s.h.**
 Examines issues and options relative to secondary educational and vocational services for individuals with disabilities. Prerequisites: SPED 220, 230, 235, and 227. Each semester.
- SPED 380: SPECIAL READING AND MATHEMATICS INSTRUCTION** **3 s.h.**
 Provides students with specific data-based strategies to teach reading and mathematics to students with disabilities. Prerequisites: SPED 110, 115, 220, 235, 227, and MATH 111.
- 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** **1 s.h.**
 Participants conduct a child study in a school setting by selecting, acquiring, analyzing, and synthesizing information needed for educational decision-making regarding an individual with disabilities or with a suspected disability, and using the results to develop an educational intervention plan. Prerequisite: SPED 320. Each semester.

SPED 415: INSTRUCTIONAL DEVELOPMENT AND STRATEGIES FOR MILDLY/MODERATELY HANDICAPPED 3-6 s.h.

Participants engage in the process of individualizing instruction for individuals with mild to moderate disabilities, including: designing basic instructional sequences utilizing behavioral objectives, matching technology and learner and goal characteristics, identifying appropriate instructional strategies, and evaluating the effectiveness of instruction. Multicultural education is addressed. Prerequisites: SPED 320, 345; ELED 323, 324 (rehabilitative science majors exempted). Each semester

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 420: INSTRUCTIONAL DEVELOPMENT AND STRATEGIES FOR SEVERELY/PROFOUNDLY MULTI-HANDICAPPED 3-6 s.h.

Participants engage in the process of individualizing instruction for individuals with severe/profound multiple disabilities, including: designing basic instructional sequences using behavioral objectives, technology, learner and goal characteristics; identifying appropriate instructional strategies; and evaluating the effectiveness of instruction. Prerequisites: SPED 320, 345; ELED 323, 324 (rehabilitative science majors exempted). Each semester.

SPED 425: BEHAVIOR MANAGEMENT IN SPECIAL EDUCATION SETTINGS 3 s.h.

Focuses on the systematic application of principles of applied behavior analysis in the assessment and treatment of behavioral excesses or deficiencies. Prerequisite: SPED 320, 345, ELED 323, 324 with exception of rehabilitative science majors. Each semester.

SPED 435: INSTRUCTIONAL DEVELOPMENT AND STRATEGIES FOR THE GIFTED AND TALENTED 6 s.h.

Develops the capacity of the educator to plan, develop, deliver, and evaluate programs that will help the gifted and talented realize their individual and collective potential. Prerequisite: SPED 10 or teaching certificate.

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 450: STUDENT TEACHING 6-12 s.h.

Observation and participation in teaching students with disabilities and in activities related to the performance of a teacher's work. Prerequisites: SPED 320, 415, 420, and 425.

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.

SPED/LS 490: LIBRARY MATERIALS AND SERVICES FOR SPECIAL AUDIENCES 3 s.h.

Students explore the nature and needs of special groups of library users in order to develop collections of materials and to design programs of services to accommodate those needs. Examines special needs in all types of library settings—academic, public, school, and special—particularly the unique characteristics and instructional needs of exceptional learners who use the school library. Investigates bibliotherapy and other techniques to determine their validity for the exceptional learner. Requires field experience. Fall, annually.

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.

Division of Graduate Studies



Division of Graduate Studies

Brenda Sanders Dédé, Ed.D., assistant vice president for academic affairs

108 Carrier Administration Building

Telephone: 393-2337

E-mail address: bdede@clarion.edu

Website: www.clarion.edu/admin/

Graduate Degree Programs

Clarion University of Pennsylvania offers 13 graduate-level programs leading to the Master of Arts, 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 communication sciences and disorders 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—The Association to Advance Collegiate Schools of Business; and the Master of Science in nursing program is accredited by the National League of Nursing Accrediting Commission (NLNAC).

Biology (M.S.)

Business (M.B.A.)

Communication Education and Mass Media Technology (M.S.)

Instructional Technology Specialist Certificate

Communication Sciences and Disorders (M.S.)

Education (M.Ed.)

English (M.A.)

Library Science (M.S.L.S.)

Certificate of Advanced Studies

Pennsylvania School Library Media Certification

Nursing (M.S.N.) (offered jointly with Edinboro and Slippery Rock universities)

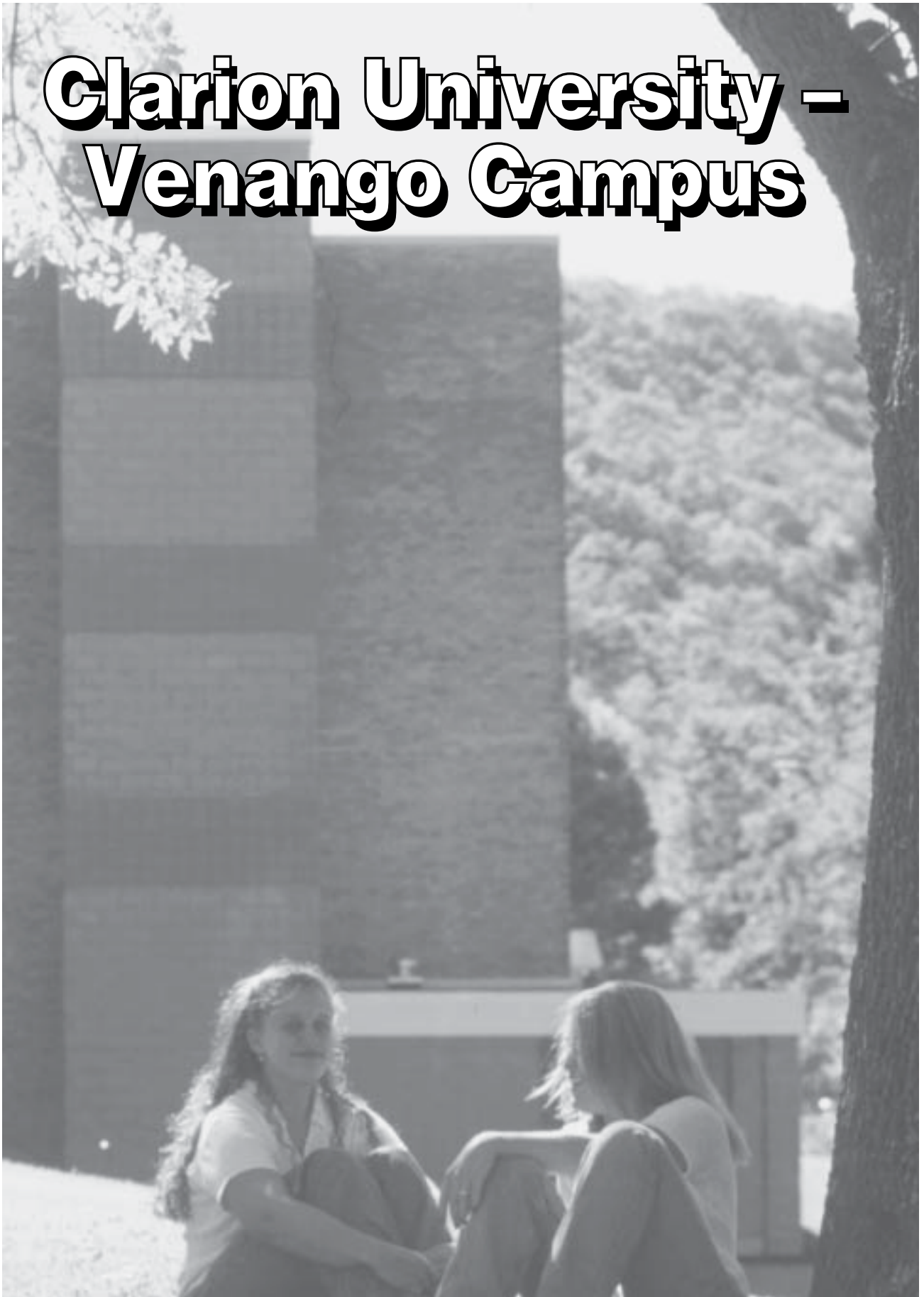
Reading Education (M.Ed.)

Science Education (M.Ed.)

Special Education (M.S.)

For more detailed information on graduate curricula and courses, refer to the *Graduate Catalog*.

Clarion University - Venango Campus



Clarion University— Venango Campus

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Mission and Goals

Venango Campus, as an integral part of Clarion University, not only responds to community needs but also serves a special role in the enhancement of the services and programs of the university. In order to articulate the mission of Venango Campus, the following goals are offered:

Goal One: To provide stand-alone, two-year associate degree programs of Clarion University.

Venango Campus will explore community needs through its contact with regional institutions in business, government, and education to ensure that meaningful and relevant associate degree programs are designed.

Venango Campus has a concurrent responsibility to provide essential support services such as personal and professional counseling, tutoring programs, academic advising, job placement services, and appropriate opportunities for participation in extracurricular activities.

Goal Two: To provide continuing education for the Venango Campus service area.

Venango Campus will have the responsibility of identifying and responding to the continuing education needs of its region.

Continuing education includes both credit and non-credit bearing course work which may be technical and non-traditional in nature, such as SAT preparation courses, allied health education, or wood products manufacture training. Some of these offerings will be certificate programs and associate degrees that may be terminal and non-transferable. These programs will complement the offerings of existing educational institutions.

Goal Three: To provide an educational foundation for the four-year degree programs of Clarion University.

Because students from Venango County and the surrounding area may find it desirable to begin their four-year degree programs at Venango Campus, the curricula will be designed so that credits earned will be accepted toward the completion of a four-year degree. Such articulation requires the appropriate structure of academic programs, reasonable scheduling, and solid advising.

Goal Four: To provide a regional campus for returning adult learners who wish to further their education at the collegiate level.

Given its location, size, and potential for program development, Venango Campus will respond to the particular needs of adult learners.

Goal Five: To provide nursing and allied health education.

Given the relatively high number of health care facilities in the Venango County area, it is logical to centralize direction and control of nursing education at Venango Campus. These programs will be adapted regularly to maintain high quality in meeting changing health care demands.

The university will provide the academic and student services necessary to ensure the quality of all the nursing education programs offered by Clarion University.

Goal Six: To provide appropriate bachelor's degree courses and graduate courses.

Venango Campus should meet the educational needs of the community's diverse non-traditional student population. Many of these students are confined to the immediate area because of financial constraints, work and familial commitments, and lack of transportation.

Goal Seven: To develop initiatives for experimentation and innovation in teaching and learning.

Venango Campus will offer opportunities for educational experimentation that will address the need to develop solutions to persisting problems in pedagogy. More effective means must be designed to meet the educational challenges of the future.

Admission and Financial Aid

Admissions

Admission policies and procedures of Clarion University - Venango Campus are the same as derived from the general requirements for admission to the university at the Clarion Campus (see page 22). In addition, to the traditional student, Clarion University-Venango Campus offers unique programs for other groups of individuals with special needs.

As part of the university's commitment to provide access to public education for the citizens of Pennsylvania, Venango Campus offers academic and personal support for "at risk" students who wish to further their education in a public institution. Through specialized student services and the Empowerment Program, Venango Campus is able to provide proactive advising, mentoring, peer tutoring, and a structured environment that helps students achieve their goals and succeed in college.

Clarion University-Venango Campus designed the "Jump Start" program to offer qualified 10th, 11th, and 12th grade students an opportunity to begin their college careers by earning college credits prior to graduating from high school. Students in the Jump Start program are eligible to enroll in day or evening classes at the Venango Campus. Also, they may take an entry-level course via the Web through CUDOS. Classes completed as a Jump Start student count toward your chosen degree program if you continue

at Clarion after your high school graduation, and these courses also transfer to other colleges and universities.

Financial Aid

Clarion University - Venango Campus provides financial aid services similar to those available at the Clarion Campus. Individualized assistance is provided to students who need information or help with financial aid issues. The Office of Admissions and Financial Aid will help students with filling out state and/or federal forms for grants and loans; books and computer software to help locate scholarships; and information on personal budgeting, community resources, and developing a savings or investment plan.

Division of Continuing Education - Venango Campus

The Division of Continuing Education at Venango Campus provides the community with a variety of course offerings. With the large resource pool established within the university and community talent, continuing education customizes and develops programs to meet the needs of the general public. Continuing education activities fall into four program types: Kids In College, SeniorNet, Non-Credit Offerings, and Certificate Programs.

Certificate Programs

Continuing Education will design certificate programs to meet the needs of the student. Certificates can be completed through credit courses, non-credit courses or a combination of credit and non-credit course offerings. Customized certificate programs provide students with skills needed for employment or promotion and can be designed on an individual basis. Examples of these certificate programs include, but are not limited to: Applied Computer Systems, Small Business Management, Office Management, Criminal Investigation, Accounting Procedures, Real Estate Practice, Electronics, Technology, Technical Trade Skills, and others.

Kids In College

A summer program provided for the children in the community in grades K-12. The program offers Discovery Camps, Travel Camps, and Technology Camps, and others. Children in these camps are exposed to many topics such as Sign Language, Music, Science, Electronics, Legos, Computers, Arts, and many others.

Non-credit Offerings

Non-credit offerings do not carry academic credit, do not require admission to the university, and do not require examinations or grades. Reasons for pursuing non-credit courses include gaining job skills, personal or professional development, enrichment, or just enjoyment.

SeniorNet

A national non-profit organization that provides centers for adults' education in the use of computers. This program

is designed for individuals 50 years of age and older and is taught by volunteers. Offered are a variety of classes for the beginner computer user to the more advanced at a nominal fee.

Student Services - Venango Campus

Campus Publications

The Venango Voice is a student campus publication that is produced weekly by a student committee. *The Venango Voice* contains important information about academic deadlines, announcements, upcoming events, and student opinions. *The Pathfinder* is the Venango Campus yearbook. It is a small memory book published annually by the Student Yearbook Committee.

Career and Placement Services

The Career Center helps students find their way through the process of choosing a major, preparing for the job search, and making the transition from campus to career. Two of the tools for career planning available at the Center are the DISCOVER and CHOICES computer programs. These programs help students in making informed career choices; give information on more than 400 occupations; and list education and training opportunities at two- and four-year colleges, graduate schools, and the military. At the center, students can also find books and videos on career planning and receive individual assistance.

The Office of Career and Placement Services provides resources to prepare students in their job search, including instruction and workshops in resume and cover letter writing. Also available are mock interviews (videotaped if desired), camera-ready resume services, and credential files (for use when seeking employment). Employment seminars for each associate degree major, employer files, job listings and phone line (local, state, and national openings), and job search counseling are among the services available to our students. Support groups are available if needed. Shadowing, mentoring, Internet listings, and volunteer opportunities are also resources available to Venango Campus students.

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. Fees are established by the child care provider. The child care center is located in Montgomery Hall. Financial support is available for qualified students.

Clarion Campus Opportunities

Students are encouraged to travel to the Clarion Campus to participate in a number of activities including Greek life, musical productions, theatre productions, intercollegiate teams, on-campus housing, and religious groups.

Empowerment Program

Individually tailored services and accommodations are provided for students who feel they are “at risk” of dropping out of college due to challenges in their learning. Student counseling and academic progress monitoring are available to assist in empowering students to meet their goals and persist in college.

Food Service

A Snack Bar located in Rhoades Center is open Monday through Thursday when classes are in session during the fall and spring semesters.

Housing

On-campus housing is not available at this time, but is being pursued for the future. An updated listing of local off-campus housing is available from the Office of Student Services in Room 222, Montgomery Hall. University regulations and procedures for off-campus housing are described on page 6 in the Student Services section.

Learning Support Center

The Learning Skills Center provides an array of academic support services, including: the identification and counseling of study skills proficiency, individualized or group assistance/tutoring, academic success workshops, video tapes, handouts and resource materials for the self-motivated learner, computer software for developing mathematics skills, reading comprehension, critical thinking, vocabulary, accounting, anatomy and physiology, Westlaw, word processing, tutorial, learning support groups, and supplemental instruction (specifically designed study sessions three times a week for selected courses).

New Student Orientation Seminars

New students are encouraged to participate in the Venango Experience Seminars which is an extended orientation for the first eight weeks of the semester. These seminars introduce participating students to important skills, such as time management and study techniques, that will assist students in making a successful adjustment to college. At the same time, each participant is assigned a student mentor who will help ease the student’s transition to college life and help make the student comfortable in the new environment.

Personal Counseling

Regularly enrolled students can make use of professional counseling, support groups, and workshops offered by Counseling Services. The office can help students deal with problems of personal, social, and emotional adjustments as well as developmental, educational, and career goals. Counseling contacts are strictly confidential.

Sports Competition

Each year, students participate in softball, golf, volleyball, basketball, table tennis, pool, and bowling. Winners or all-stars from intramurals go on to compete in

tournaments against regional campuses in the Northwestern Extramural Sports Conference.

Student Government

The Student Senate, a student governing body on the Clarion University-Venango Campus, is composed of five returning students and four new students by election. The senate develops a budget based on the student activity fee and makes recommendations to the Executive Dean in the areas of policy and campus improvements.

Student Health Services

Emergency room visits are provided free of charge for Venango Campus students at UPMC - Northwest Medical Center. Laboratory work, X-rays, and prescription drugs are not included, and the student must pay the costs of these services. While on campus, students may have emergency ambulance transport from the campus to UMPC-Northwest Medical Center, provided free to enrolled students. Alcohol and drug awareness education/training is available through the Health Center at the Clarion Campus.

Student Organizations and Events

Involvement is the key to persisting in college and getting a degree. At Venango Campus, 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:

Adult Learners Organization	Nursing Club
Business Club	Outdoor Club
Campus Activities Board	Phi Theta Kappa
Council of Exceptional Children	(academic honorary)
Legal Assistants	Psychology Club
Newspaper and Yearbook Staffs	Ski Club

A variety of social and cultural events is available on Clarion University-Venango Campus: nationally known performers, informal dances, service projects, ski and canoe trips, coffeehouses, and much more. Many events are family-oriented, and students and families are encouraged to participate. Most activities are free to students and are provided by the student activity fees. Students play an integral part in planning campus events and projects. A variety of leadership workshops, which give students the opportunity to upgrade and learn new skills, are offered throughout the year.

Suhr Library

The Charles L. Suhr Library provides library resources, study facilities, and computers for Venango Campus students. The library contains 40,000 volumes and subscribes to 177 periodicals. 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. 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 must also park only in designated student parking areas.

Write Inn (Room 319, Montgomery Hall)

The Write Inn is open for assistance on class writing assignments or word processing. This laboratory provides computers, word processing software, and writing tutors to help students with writing assignments.

Academic Programs

Degree Listing

- Allied Health (A.S.)
- Arts and Sciences (A.A.)
- Early Childhood (A.S.)
- General Business Administration (A.S.)
 - General Management*
- Legal Business Studies (A.S.)
 - Legal Assistant*
- Nursing (A.S.N., B.S.N.)
- Nursing (M.S.N.)
 - Family Nurse Practitioner
 - Nursing Education
- Radiologic Sciences (B.S.)
- Rehabilitative Services (A.S.)

**academic concentrations*

To complete an associate's degree, a minimum of 30 credit hours must be completed on the Venango Campus. For General Business Administration (A.S.) and Legal Business 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.

Associate of Arts: Arts and Sciences

The Associate of Arts is a liberal arts degree program designed to provide the traditional student with a range of experiences or to provide the adult learner with a flexible educational program. To complete an associate's degree, a minimum of 30 credit hours must be completed on the Venango Campus.

Suggested Program Outline

- I. Communication (12)*
 - ENG 111 Writing II
 - MATH 112 Excursions in Mathematics
 - SCT 113 Fundamentals of Speech
 - 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
 - SCT 253 Introduction to the Theatre
- III. Natural Science (12-13)*
 - 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 (14)

TOTAL: 64

**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.*

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 this 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 associate's degree program provides a strong foundation for individuals desiring to continue their education at the baccalaureate level. Appropriate advising will provide students with a solid basis for employment while providing graduates the opportunity for upward mobility in the early childhood profession.

The program may be taken on a part-time or full-time basis. The following is a sample curriculum for the two year associate degree:

Suggested Sequence

FIRST SEMESTER

ENG	111	Writing II	3
HPE	111	Health Education	2
ED	121	Human Development and Learning	3
ECH	320	Dev. Bases for Learning and Teaching	3
MATH	112	Excursions in Mathematics	3
PSY	211	General Psychology	3
TOTAL			17

SECOND SEMESTER

PSY	260	Developmental Psychology	3
ECH	231	Creativity in Early Child. Curr.	3
ECH	235	Observ. & Assess. in Early Child. Set.	3
ECH	322	Curr. Bases for Learning & Teaching	3
		Free elective	3
		TOTAL	15

THIRD SEMESTER

PSCI	111	Basic Physical Science: Chemistry	3
HPE	317	First Aid and Safety	2
CIS	217	Applications in Microcomputers	3
ECH	323	Language, Literacy and the Young Child	3
ECH	325	Young Children as Theory Builders	3
		Humanities elective	3
		TOTAL	17

FOURTH SEMESTER

SOC	211	Principles of Sociology	3
HPE	410	Motor Development and Learning	3
ECH	413	Interactions in Early Childhood Settings .	3
ECH	420	Issues and the Advocacy in Early Childhood Settings	3
		Free elective	3
		TOTAL	15

**If a student is required to take ENG 110 prior to ENG 111, ENG 110 may be used as a general education or free elective.*

***Students may substitute MATH 111 Mathematical Concepts in Grades k-8 for MATH 112 if planning to continue for a 4-year baccalaureate degree.*

****Students may substitute SCT 113 Fundamentals of Speech or other courses in Liberal Skills I-C.*

Associate of Science: General Business Administration

The Associate of Science in General 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's degree, students wishing to further their education may continue at the baccalaureate level on the Clarion campus.

Objectives

1. Assure 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 REQUIREMENTS—20 CREDITS): ENG 111, SCT 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: Legal Business Studies

The associate of science degree in legal business studies offers a program designed to educate students to render direct assistance to lawyers, clients, and courts, whether in a law office, governmental institution, or as an independent contractor, when authorized to do so by administrative, statutory, or court authority. 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 REQUIREMENTS—23 CREDITS):

ENG 111, SCT 113, HPE 111, PSY 211, ECON 211, MATH 131, ENG 307, and a three-credit general education elective.

Note: The general education elective must be selected from an approved list of general education courses. This list is available from the director of Legal Business Studies and can be viewed on the program's Website at <http://www.clarion.edu/coba/finance/aa-legal.htm>.

BUSINESS CORE (21 CREDITS): ACTG 251, 252; BSAD 240, 241; CIS 217; ECON 221, and MGMT 120.

LEGAL ASSISTANT CONCENTRATION (18 CREDITS): BSAD 238, 242, 246, 248, 249; and one of the following courses: BSAD 239, 243, 244, 247.

FREE ELECTIVE (3 CREDITS): Students should use their free elective to tailor the Legal Assistant 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's degree program in Rehabilitative Sciences trains people to work in paraprofessional roles with persons with special needs in human service agencies. These include, but are not limited to, the roles of life skills worker, life coach, classroom assistant, and human development assistant. Since 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 who enroll in the

associate's 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 full credit toward graduation for all courses taken while earning the associate degree.

General Education		Cr.
ENG 111	Writing II	3
SCT 113	Fundamentals of Speech	3
PSY 211	General Psychology	3
PSY 225	Psychology of Adjustment	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	6
	General or free elective	6
	TOTAL	36
Special Education		
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	3
SPED 235	Specific Learning Disabilities	3
SPED 245	Behavior Management	3
SPED 250	The Helping Relationship: Principles and Procedures	3
SPED 295	Field Experience	6
	TOTAL	30

Suggested Sequence

FIRST SEMESTER

ENG 111	Writing II	3
SCT 113	Fundamentals of Speech	3
REHB 110	Human Exceptionalities	3
REHB 115	Human Relations	3
PSY 211	General Psychology	3
	TOTAL	15

SECOND SEMESTER

PSY 260	Developmental Psychology	3
PSY 225	Psychology of Adjustment	3
SPED 220	Nature of Mental Retardation	3
SPED 230	Social and Emotional Disturbances	3
SPED 235	Specific Learning Disabilities	3
	Elective—humanities or natural sciences	3
	TOTAL	18

THIRD SEMESTER

REHB 227	Neurological Impairment and Physical Disorders	3
SOC 211	Principles of Sociology	3
ED 122	Educational Psychology	3
SPED 245	Behavior Management	3
	Electives—humanities or natural sciences	6
	TOTAL	18

FOURTH SEMESTER

SPED 250	The Helping Relationship: Principles and Procedures	3
SPED 295	Field Experience	6
	Related electives	3
	Elective—general elective	3
	TOTAL	15



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
COMM	100	Explorations in Mass Communication	3
COMM	101	Message Design	3
COMM	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
SCT	113	Fundamentals of Speech	3
SCT	200	Interpersonal Communication Theory & Processes	3
SCT	214	Business and Professional Speaking	3
SCT	225	Communication and Conflict	3
SCT	253	Introduction to Theatre	3

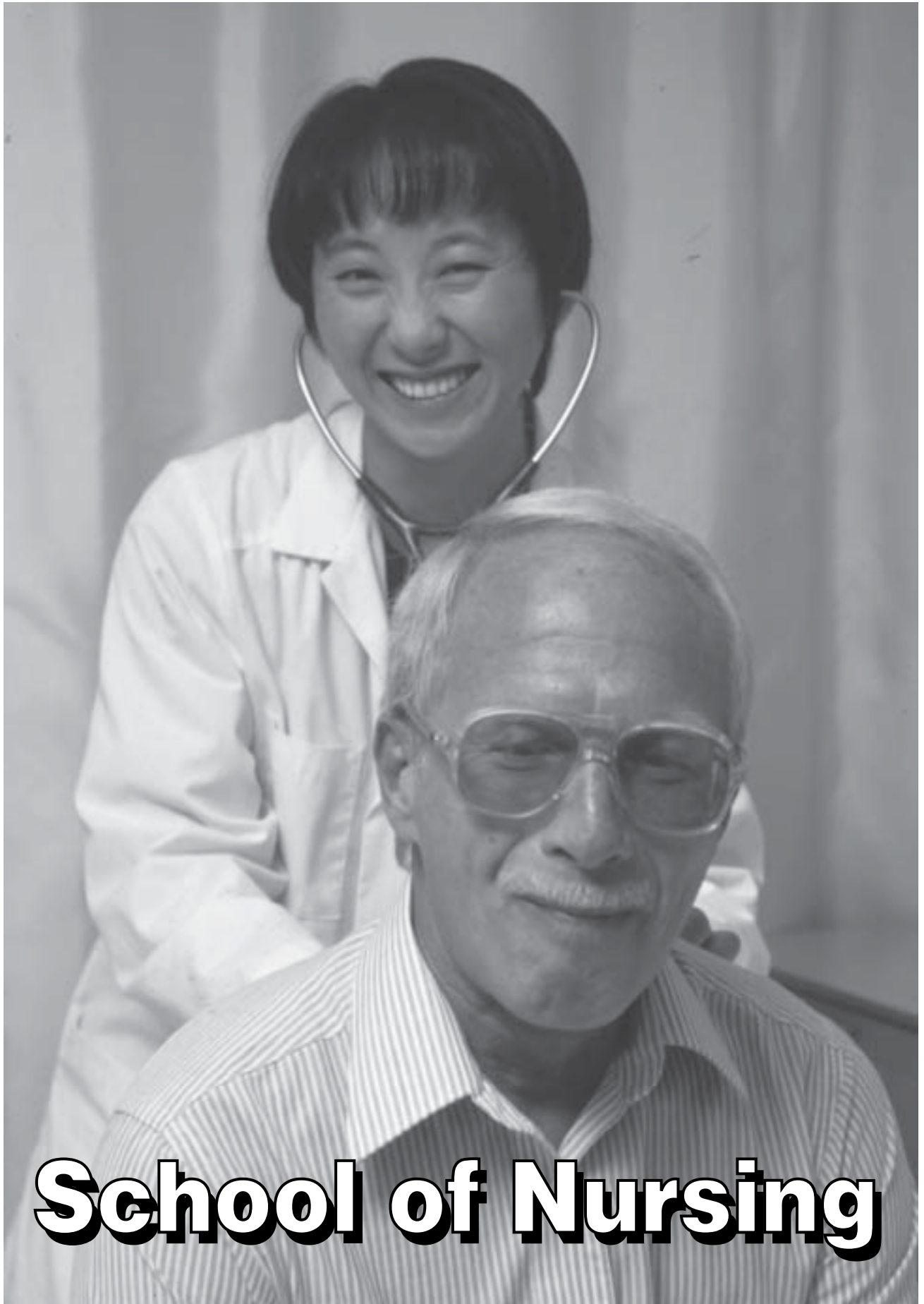
College of Business Administration

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 Entre 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 & 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 - See page 193



School of Nursing

School of Nursing

Department of Nursing, Mary Kavooosi, Ph.D., chair

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 E-mail address: mkavooosi@clarion.edu
 Website: www.clarion.edu/departments/nurs/

Associate Professors: Kavooosi, Pritchett; **Assistant Professors:** Falvo, Matson-Stephenson, Nicodemus, Shiley, Tarr, Zidek

Accreditation

National League for Nursing Accrediting Commission (NLNAC)

Degree Listing

Allied Health (A.S.)
 Athletic Training Program (B.S.Ed.)
 Family Nurse Practitioner and Nurse Educator (M.S.N.)—Joint Clarion/Edinboro/Slippery Rock Venango Campus, Oil City, PA
 Clarion Campus, Clarion University, Clarion, PA
 Edinboro University, Edinboro, PA
 Pittsburgh Site, Pittsburgh, PA
 Slippery Rock University, Slippery Rock, PA
 Slippery Rock, Wexford Site
 Nursing (A.S.N., B.S.N., M.S.N.)
 Nursing-RN Completion Program (B.S.N.) (M.S.N.)—Joint Clarion/Edinboro/Slippery Rock Venango Campus, Oil City, PA
 Pittsburgh Site, Pittsburgh, PA
 Radiologic Sciences (B.S.)

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 assimilates 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). A baccalaureate degree program for RNs, located at Clarion University—Venango Campus and the Pittsburgh site, 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 promote 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 School 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 School 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 National League for Nursing Accrediting Commission (NLNAC) 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 program, the graduate will be eligible to take the state licensure examination.

Bachelor of Science in Nursing

Clarion's NLNAC-accredited 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.

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.

School 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 grades of "C" in each of the following nursing courses: NURS 101, 102, 201, 202, 203, 131, 132, 340, 342, 346, 361, 357, 376, 445, 470, and 480. A passing grade is required in all clinical courses: NURS 111, 112, 121, 211, 212, and 481.

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 evaluation tool based on program and course objectives evaluates the baccalaureate student's clinical performance. 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 nursing students is consistent with that of Clarion University; however, nursing credits are transferable only if received from an associate degree or bachelor's degree program within the preceding two years. If the individual has been out of a nursing program for more than two years, the Nursing Mobility Profile I must be taken for transfer of nursing credit. Diploma students who transfer must take the Nursing Mobility Profile I for transfer of nursing credit.

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 to be considered for admission to the program in the fall.
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 Allied Health

The Associate of Science in Allied Health has an academic preparation of two years (62-68 semester hours including general education) at Clarion University with 30 residential credits and is designed for those students who want an associate degree in allied health or health-related areas. The degree is neither related to, nor a substitute for, any existing degree offered at Clarion University, i.e. Associate of Science in Nursing, etc. The degree is for individuals who have extensive personal life experiences in an allied health field or have a number of academic credits and want an associate degree in allied health. The program may apply to students who have accumulated at least 30 credits through health and/or allied health courses while meeting the general education requirements for an associate degree from Clarion University. An example of an audience for the program would be diploma nursing school students who have accumulated many nursing and general education credits, but ended their program with a hospital-issued diploma. (An Associate of Science in Nursing cannot be earned unless the courses in the major are taught by the university issuing the degree).

Sample Curriculum

- | | |
|------------------------------------------|---------------------|
| I. Liberal Education Skills | 9-12 Credits |
| A. English Composition | 3 -6 Credits |
| B. Quantitative Reasoning | |
| or Mathematics Competency | 3 Credits |
| C. Liberal Education Electives | 3 Credits |

- II. **Liberal Knowledge** 15 Credits
 - A. Physical and Biological Sciences 3-9 Credits
 - B. Social and Behavioral Sciences 3-9 Credits
 - C. Arts and Humanities 3-9 Credits
- III. **Health and Personal Performance** 2 Credits
 - A. Health and Wellness/Personal Performance 2 Credits
- IV. **General Education Electives** 6-9 Credits
(Sufficient to Total 32 Credits)
- V. **Allied Health** 30 Credits

Associate of Science in Nursing Program

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.
- 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.

Candidates who **do not** meet all the high school requirements must take the following courses. A grade of “C” or better must be earned.

1. To satisfy the social studies requirement, an individual must complete a history course (e.g., United States, western civilization; not history of art or music).
2. To satisfy the science requirement, an individual must complete BIOL 111 and PHSC 111 or CHEM 153 and 163. (College credits for the sciences are acceptable only if they have been earned within 10 years of admission.)
3. To satisfy the mathematics requirement, an individual must take the university mathematics placement test. Based on the results of this exam, the individual will either be exempt from MATH 050 or be required to take MATH 050. College credits for mathematics are acceptable only if they have been earned within 10 years of admission.
4. All Clarion students must take ENG 111, Writing II. (The university requires **all** entering students to take a placement test in order to determine whether they need to take a developmental course prior to taking ENG 111, the course needed to graduate from Clarion University). People who are placed in ENG 110 (Writing I) must complete this course in order to take ENG 111.

Admission Policies for Entrance

Applicants who satisfy all of the high school criteria will be considered for admission into the A.S.N. Program. Admission procedures for the A.S.N. Program include:

1. completing a university application or a Change of Status Form by the designated dates;
2. completing an essay (250 words or less) which addresses the applicant’s interest in the nursing profession;
3. requesting an official high school transcript and official transcripts from any previously attended colleges and/or universities to be sent to the Admissions Office;
4. attending an informational session related to Clarion’s nursing programs;
5. taking the NLN Pre-Entrance Tests (LPNs and applicants with bachelor degrees are exempt);
6. meeting the accepted admission criteria in high school class rank, admission scores in SAT/ACT, or hold a four-year college/university degree;
7. achieving a QPA of 2.00 or better in high school and/or college; and

Articulation Policy

Licensed practical nurses who have graduated within three years from an NLNAC-accredited nursing program are eligible for direct articulation into Clarion’s A.S.N. 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 non-NLNAC accredited nursing program,
- (2) practiced nursing less than 1,000 hours within three years of application, and
- (3) graduated from a NLNAC-accredited nursing program more than 10 years ago.

Associate of Science in Nursing Degree Program Curriculum

Freshman Year		
FIRST SEMESTER		Credits
NURS 101	Nursing Process I: Fundamentals of Nursing Practice	3
NURS 111	Nursing Process I: Fundamentals of Nursing Clinical Practice	2
NURS 121	Nursing Process I: Fundamentals of Nursing Practice Lab	1
NURS 131	Nursing Health Assessment	2
BIOL 258	Anatomy and Physiology I	3
PSY 211	General Psychology	3
ENG 111	Writing II	3
	TOTAL	17

SECOND SEMESTER		<i>Credits</i>
NURS 102	Nursing Process II	4
NURS 112	Nursing Process II Clinical Practice	4
NURS 132	Pharmacological Aspects of Nursing	2
BIOL 259	Anatomy and Physiology II	3
PSY 260	Developmental Psychology	3
	TOTAL	16
Sophomore Year		
THIRD SEMESTER		<i>Credits</i>
NURS 201	Nursing Process III	4
NURS 211	Nursing Process III Clinical Practice	4
SCT 113	Fundamentals of Speech	3
SOC 211	Principles of Sociology	3
	Humanities elective	3
	TOTAL	17
FOURTH SEMESTER		<i>Credits</i>
NURS 202	Nursing Process IV	4
NURS 212	Nursing Process IV Clinical Practice	4
NURS 203	Trends and Issues in Nursing	2
	Liberal education elective	3
	Elective	3
	TOTAL	16
TOTAL CREDITS		66

Bachelor of Science in Nursing Program

Admission Requirements

Admission into the Bachelor of Science in Nursing Completion Program is consistent with the Pennsylvania Articulation Model developed by a task force of the Pennsylvania Higher Education Nursing Schools Association Inc. (PHENSA) for the Coalition for Nursing Education. 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 5 below).
2. Transferring the required 33 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 or diploma program in nursing.
2. Hold current licensure as an RN in Pennsylvania or have applied to take the licensure examination for registered nurses in the state of Pennsylvania prior to beginning any required nursing course.
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.
5. Complete a personal interview to determine:
 - a. Suitability for professional nursing.
 - b. Personal goals related to professional nursing.

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 requirements is not guaranteed admission into the program.

Articulation Policy

Registered nurses who have graduated within three years from an NLN-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 NLN,
- (2) practiced nursing less than 1,000 hours within three years of application, and
- (3) graduated from an NLN-accredited nursing program more than 10 years ago.

B.S. in Nursing Curriculum

FRESHMAN YEAR SOPHOMORE YEAR**

		Junior Year	
			<i>Credits</i>
FIRST SEMESTER			
NURS 340	Nursing in Transition		3
NURS 361	Nurse as Educator		3
	Statistics		3
	**Free elective		3
	**Free elective		3
SECOND SEMESTER			<i>Credits</i>
NURS 342	Thinking in Contemporary Nursing		3
NURS 346	Health Assessment		2
NURS 357	Leadership in Nursing		3
CIS 217	Applications of Microcomputers		3
BIOL 453	Pathophysiology: Endogenous Agents		4
		Senior Year	
THIRD SEMESTER			<i>Credits</i>
NURS 376	Frontiers of Health Care		3
NURS 445	Inquiry in Nursing		3
NURS 470	Promoting Healthy Communities		3
	Nursing elective		3
	**Free elective		3
	Arts and humanities elective		3
FOURTH SEMESTER			<i>Credits</i>
NURS 480	Role Seminar in Professional Nursing		3
NURS 481	Practicum in Professional Nursing		2
	Nursing elective		3
	Arts and humanities elective		3
	**Free elective		3
	**Free elective		3
TOTAL CREDITS			128

**Refer to freshman and sophomore years of Associate of Science in Nursing curriculum.*

***Individuals desiring School Nurse Certification must take courses required by the Pennsylvania Department of Education. These requirements are available from the Nursing Department.*

Bachelor of Science in Education – Athletic Training Program

In collaboration with California University of Pennsylvania, Clarion University offers an array of courses applicable toward a Bachelor of Science in Education - Athletic Training Program. The program provides general education credits through Clarion and course work in sports medicine and athletic training by means of distance learning from California’s campus. In addition, students are required to complete practicums and labs taught by the sports medical staff at Clarion University. The Bachelor of Science in Education - Athletic Training Program requires the completion of 128 credits for graduation with the degree being awarded by California University. Fifty-nine credits are in the athletic training concentration and 69 are in general education. Of the 59 credits in athletic training, 25 credits are earned through courses taught at Clarion by California through distance education and 34 credits in athletic training are taught by Clarion University’s sports medicine and athletic training staff.

Admission to Athletic Program

Admission to the Undergraduate Program Admission into the Athletic Training Education Program is **extremely** competitive, and only **approximately six** students are selected each year. Applications for the Athletic Training curriculum are accepted during the second semester of the freshman year and screened by the California University Admissions and Academic Standards Committee (AASC). During this semester, the student submits a letter of application to the AASC, which screens, interviews, and selects the remaining students to be admitted. Criteria for selection are a minimum 3.00 QPA, or a composite score on the freshman entrance exam of 17, minimum 100 observation hours, and interview with a departmental faculty member.

Athletic Training Requirements

General Education

Students must satisfy general education requirements of California University, which include the following:

Liberal Education Skills	15 Credits
English Composition	6 Credits
Math Competency	3 Credits
Other	6 Credits
Liberal Knowledge	33 Credits
Physical Biological Sciences	9 Credits
Social and Behavioral Sciences	9 Credits
Humanities	15 Credits
Health and Personal Performance	2 Credits
Free electives	17 Credits

Professional Education

Professional Education courses for the Athletic Training Program include a collection of Liberal Knowledge and Health and Physical Education courses and foundation

courses in Sports Medicine and Athletic Training. The following courses are required for the program:

		Credits
BIOL	258	Anatomy & Physiology I 3
BIOL	259	Anatomy & Physiology II 3
PSY	211	General Psychology 3
REHB	405	Substance Abuse 3
HPE	111	Health Education 2
PSY	211	General Psychology 3
SOC	211	Principles of Sociology 3
HPE	314	Cardiopulmonary Resuscitation 1
HPE	317	First Aid and Safety 2
HPE	334	Food, Fitness and Weight Management 3
*ATE	110	Practicum Athletic Training II 1
*ATE	225	Evaluative Techniques I 4
*ATE	225	Evaluative Techniques I – Lab 0
*HSC	275	Functional Kinesiology 3
*ATE	265	Evaluative Techniques II 4
*ATE	265	Evaluative Techniques II – Lab 0
*HSC	290	Therapeutic Modality 4
*HSC	90	Therapeutic Modality – Lab 0
*HPE	270	Physiology of Exercise 3
*ATE	300	Practicum Athletic Training III 2
*ATE	330	Therapeutic Exercise 4
*ATE	330	Therapeutic Exercise Lab 0
*ATE	425	Adm. Aspects of Athletic Training 2
*ATE	460	Sports Medicine Research 3
*ATE	500	Pharmacology for the Allied Health Sciences 2
*ATE	400	Orthopedic Evaluations in Sports Medicine I 1
*ATE	400	Orthopedic Evaluations in Sports Medicine I 1
*ATE	405	Sports Medicine Practicum 1
*ATE	405	Sports Medicine Practicum 1
*ATE	405	Sports Medicine Practicum 1
*ATE	405	Sports Medicine Practicum 1

*Courses taught by California University at Clarion University or by ITV to Clarion Campus

Bachelor of Science in Radiologic Sciences Program

The Bachelor of Science in Radiologic Sciences has an academic preparation of two years (68 semester hours including general education) at Clarion University and continues with a 24-month, 60-semester hours course of clinical study in a hospital-based school of Radiologic Technology. The hospital-based school of Radiologic Technology is accredited by the Joint Review Committee on Educational Programs in Radiologic Technology (JRCERT). Entry into the general education portion of the program is available to individuals meeting university admission criteria. Upon successful completion of one year at Clarion University, the student is eligible to apply for admission to an affiliated hospital school. Although application is made through the office of the coordinator of radiologic technology at Clarion, acceptance is at the discretion of the staff of the clinical school. Hospital-based clinical education has limited space and high admission



standards. Admission to the Bachelor of Science in Radiologic Science program at Clarion University does not guarantee admission to an affiliated hospital-based program, although we commit to prudent enrollment management to maximize the success of the students we accept. At the completion of the second year of courses at Clarion University, students then enter the Radiologic Technology Program at the medical center. Upon successful completion of this course of study, the student is awarded a Bachelor of Science in Radiologic Sciences degree. After graduation from Clarion University, the student is eligible to sit for the National Registry Test sponsored by the American Registry of Radiologic Technologists. Successful completion of this examination entitles the graduate technologist to use the credentials R.T. (R) Registered Technologist (Radiographer) and practice as an R.T. in most states in the United States.

Admission Policy

Students interested in the Bachelor of Science in Radiologic Sciences degree will be accepted into the university using the standard criteria for admission. Retention in the program requires the student maintain a cumulative 2.50 QPA and attain a grade of "C" or higher in all required professional courses and all required major courses. Students who apply for admission into an affiliated medical center's two-year radiologic technology program must do so at the end of their freshmen year. Application is made through the university coordinator; however, acceptance of the student into the medical center's radiologic technology program is at the discretion of the admission committee of the agency. Students will be accepted by the medical center on the basis of their university records, application materials, and interviews with the medical center program director and admissions committee.

B.S. in Radiological Sciences Curriculum

Although the Bachelor of Science in Radiologic Sciences is designed to be completed in two academic years at

Clarion University and two years at Northwest Medical Center, part-time study is available during the first two years. The curriculum outline for the freshman and sophomore years of the program is as follows:

Freshman Year

FIRST SEMESTER		Credits
BIOL	258 Anatomy and Physiology I	3
CHEM	153 General Chemistry I	3
CHEM	163 General Chemistry Laboratory I	1
ENG	111 Writing II	3
	Arts and humanities elective	3
	¹ Social and behavioral sciences elective	3
	TOTAL	16
SECOND SEMESTER		Credits
BIOL	259 Anatomy and Physiology II	3
CHEM	154 General Chemistry II	3
CHEM	164 General Chemistry Laboratory II	1
	² Liberal education elective	3
	³ Social and behavioral sciences elective	3
	Free elective	3
HPE	111 Health Education	2
	TOTAL	18

Sophomore Year

THIRD SEMESTER		Credits
NURS	101 Fundamentals of Nursing	3
NURS	121 Nursing Lab	1
PHSC	112 Basic Phy. Sci.: Physics & Astronomy	3
	Arts and humanities elective	3
MATH	⁴ Mathematics competency	3
	General education elective	3
HPE	Activity course	1
	TOTAL	17
FOURTH SEMESTER		Credits
MATH	221 Elementary Applied Statistics	3
	⁵ Liberal education elective	3
	Social and behavioral sciences elective	3
	General education elective	3
	Arts and humanities elective	3
	Free elective	3
HPE	Activity course	1
	TOTAL	17

Note recommended courses:

- ¹ PSY 211 General Psychology
- ² SCT 113 Fundamentals of Speech
- ³ SOC 211 Principles of Sociology
- ⁴ MATH 112 Excursions in Math
- ⁵ CIS 217 Applications of Microcomputer

JUNIOR YEAR SENIOR YEAR**

**Refers to junior and senior year of the Bachelor of Science in Radiologic Sciences curriculum obtained through the Radiologic Technology Program at the Medical Center.*

School Nurse Certification

Individuals seeking school nurse certification are required to complete the curriculum requirements of the Bachelor of Science in Nursing Program in addition to specific courses related to school nursing certification competencies. Upon receipt of the degree, the graduate is recommended for certification as a school nurse in all grades of the Pennsylvania public schools.

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: A minimum grade of "C" in BIOL 258 and 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 and 121. Fall, annually.
- NURS 102: 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 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 2 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 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 "C" 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 developments 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 "C" 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 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 "C" in NURS 201, and "Pass" in NURS 211. Spring, annually.

Nursing Bachelor 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. Annually and as needed. Open to all students.

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. Must be taken prior to NURS 462/472 and 464/474 and 351. 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. Fall, 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. Annually, and as needed.

NURS 351: PUBLIC SCHOOL NURSING 3 s.h.

Emphasizes the new dimensions of school health and public school nursing. Defines and explores personal qualifications, professional preparation, and the expanded role of the school nurse in the classroom and clinical practicum. Concentrates on health education and health promotion of school age children and adolescents. Each student has a clinical practicum with a certified school nurse in the public school setting. One and one-half lecture and 4+ clinical hours weekly. Prerequisites: NURS 340, 361, and 346 or a B.S. in nursing. NURS 342 is a pre- or co-requisite for undergraduate students. Open to RN students and students holding a B.S. in Nursing. 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 RN students 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. Annually as needed.

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. 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 RN students and others with permission of instructor. Fall, annually, and as needed.

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: MATH 221 or 222 or an equivalent course in statistics and a minimum grade of "C" in NURS 361, 340 and 342. Spring, 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, and 361. Pre or co-requisite NURS 346. 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 481. Prerequisites: Earned grade of "C" in NURS 340, 342, 346, 357, 361, 376, 445, 470. Spring, annually, and as needed.

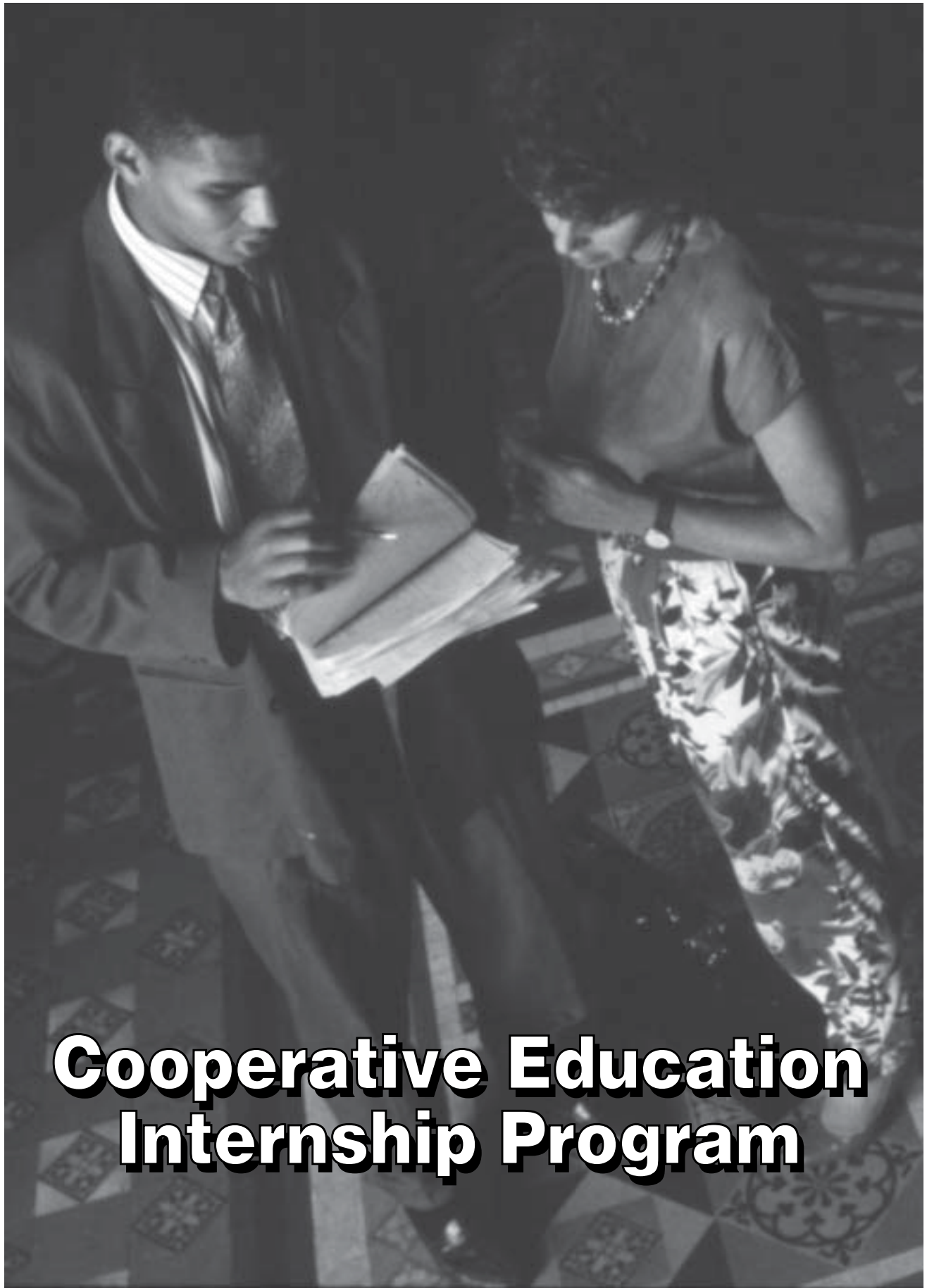
NURS 481: PRACTICUM IN PROFESSIONAL NURSING 2 s.h.

Provides opportunities for the student to implement and evaluate a self-directed clinical experience guided by the objectives identified in the program capstone course NURS 480. Students may select experiences from a variety of clinical focuses appropriate to the course including practice, research, education, administration, and policy. This course must be taken as a co-requisite to NURS 480. Six clinical hours weekly. Prerequisites: minimum grade of "C" in NURS 340, 342, 346, 357, 361, 376, 445, and 470. Spring, annually, and as needed.

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.





Cooperative Education
Internship Program

Cooperative Education Internship Program

Cooperative Education Internship Program

College Deans

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 will carry "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.



Co-op Course Numbers

COOP 301: Co-op/Anthropology
 COOP 401: Intern/Anthropology
 COOP 302: Co-op/Philosophy
 COOP 402: Intern/Philosophy
 COOP 303: Co-op/Political Science
 COOP 403: Intern/Political Science
 COOP 404: Co-op/Sociology
 COOP 404: Intern/Sociology
 COOP 305: Co-op/Social Work
 COOP 405: Intern/Social Work
 COOP 306: Co-op/Art
 COOP 406: Intern/Art
 COOP 308: Co-op/Biology
 COOP 408: Intern/Biology
 COOP 309: Co-op/Environmental Sciences
 COOP 409: Intern/Environmental Sciences
 COOP 310: Co-op/Outdoor Education
 COOP 410: Intern/Outdoor Education
 COOP 311: Co-op/Science Education
 COOP 411: Intern/Science Education
 COOP 312: Co-op/Chemistry
 COOP 412: Intern/Chemistry
 COOP 313: Co-op/Communications
 COOP 413: Intern/Communications
 COOP 314: Co-op/Advertising
 COOP 414: Intern/Advertising
 COOP 315: Co-op/Journalism
 COOP 415: Intern/Journalism
 COOP 316: Co-op/Public Relations
 COOP 416: Intern/Public Relations
 COOP 317: Co-op/Radio
 COOP 417: Intern/Radio
 COOP 318: Co-op/Television
 COOP 418: Intern/Television
 COOP 320: Co-op/Accounting
 COOP 420: Intern/Accounting
 COOP 321: Co-op/International Business
 COOP 421: Intern/International Business
 COOP 322: Co-op/Banking
 COOP 422: Intern/Banking
 COOP 323: Co-op/Finance
 COOP 423: Intern/Finance
 COOP 324: Co-op/Management
 COOP 424: Intern/Management
 COOP 325: Co-op/Marketing
 COOP 425: Intern/Marketing
 COOP 326: Co-op/Real Estate
 COOP 426: Intern/Real Estate
 COOP 327: Co-op/Economics
 COOP 427: Intern/Economics
 COOP 328: Co-op/Administration

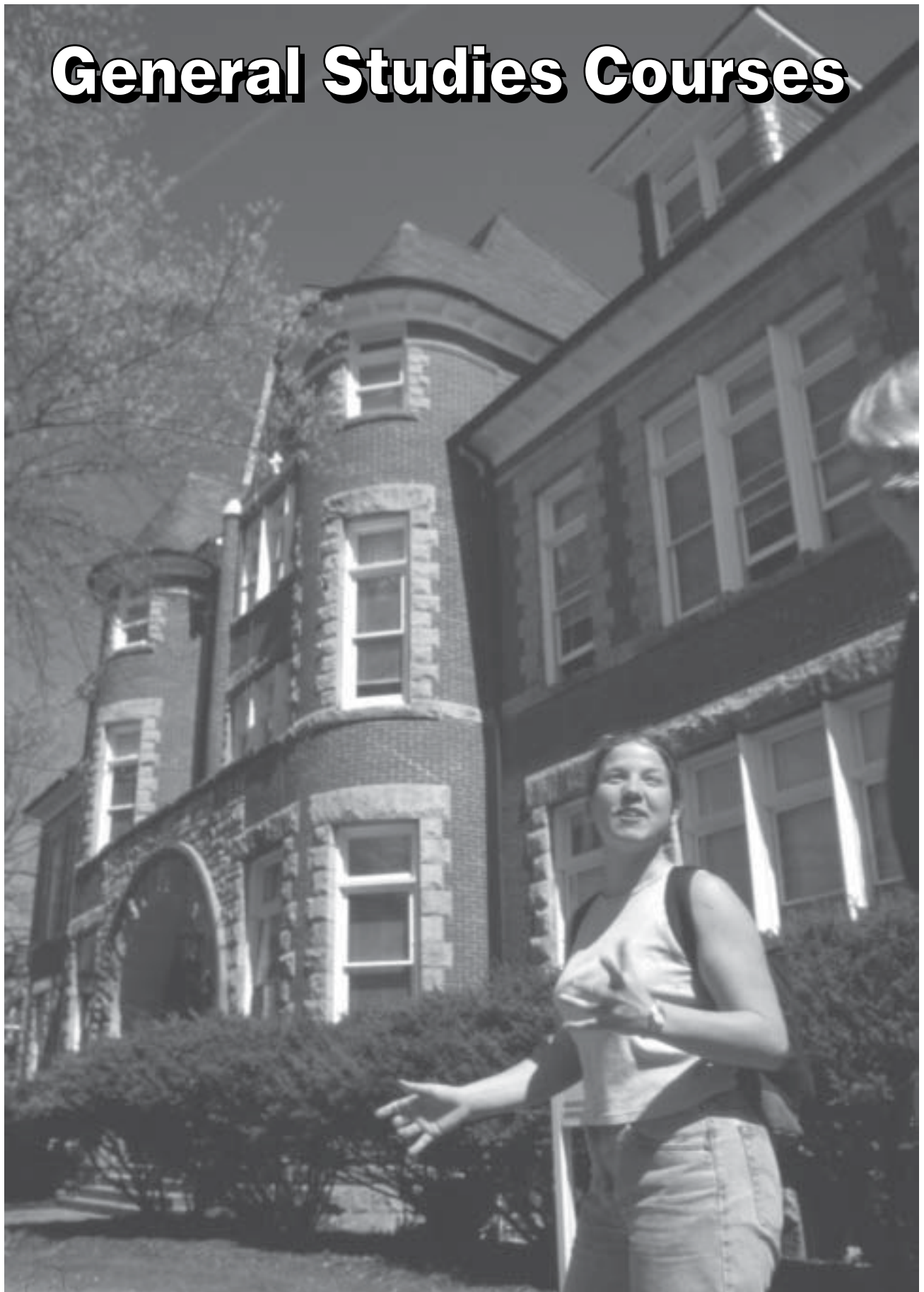
COOP 428: Intern/Administration
 COOP 329: Co-op/Office Management
 COOP 429: Intern/Office Management
 COOP 330: Co-op/Management in Library Science
 COOP 430: Intern/Management in Library Science
 COOP 332: Co-op/Early Childhood
 COOP 432: Intern/Early Childhood
 COOP 333: Co-op/Elementary Education
 COOP 433: Intern/Elementary Education
 COOP 334: Co-op/Secondary Education
 COOP 434: Intern/Secondary Education
 COOP 335: Co-op/Education
 COOP 435: Intern/Education
 COOP 336: Co-op/English
 COOP 436: Intern/English
 COOP 337: Co-op/Writing Center
 COOP 437: Intern/Writing Center
 COOP 338: Co-op/Geography
 COOP 438: Intern/Geography
 COOP 339: Co-op/Earth Science
 COOP 439: Intern/Earth Science
 COOP 340: Co-op/Urban Planning
 COOP 440: Intern/Urban Planning
 COOP 341: Co-op/Health and Safety
 COOP 441: Intern/Health and Safety
 COOP 342: Co-op/Physical Education
 COOP 442: Intern/Physical Education
 COOP 343: Co-op/Recreation
 COOP 443: Intern/Recreation
 COOP 344: Co-op/Coaching
 COOP 444: Intern/Coaching
 COOP 345: Co-op/Athletic Training
 COOP 445: Intern/Athletic Training
 COOP 346: Co-op/Water Safety
 COOP 446: Intern/Water Safety
 COOP 348: Co-op/History
 COOP 448: Intern/History
 COOP 349: Co-op/Humanities
 COOP 449: Intern/Humanities
 COOP 350: Co-op/Library Science
 COOP 450: Intern/Library Science
 COOP 351: Co-op/Media
 COOP 451: Intern/Media
 COOP 352: Co-op/Mathematics
 COOP 452: Intern/Mathematics
 COOP 355: Co-op/French
 COOP 455: Intern/French
 COOP 356: Co-op/German
 COOP 456: Intern/German
 COOP 358: Co-op/Spanish
 COOP 458: Intern/Spanish
 COOP 360: Co-op/Music



COOP 460: Intern/Music
 COOP 361: Co-op/Piano
 COOP 461: Intern/Piano
 COOP 362: Co-op/Instrumental
 COOP 462: Intern/Instrumental
 COOP 363: Co-op/Vocal
 COOP 463: Intern/Vocal
 COOP 364: Co-op/Music Marketing
 COOP 464: Intern/Music Marketing
 COOP 366: Co-op/Physics
 COOP 466: Intern/Physics
 COOP 368: Co-op/Psychology
 COOP 468: Intern/Psychology
 COOP 369: Co-op/Counseling
 COOP 469: Intern/Counseling
 COOP 370: Co-op/Student Life Services
 COOP 470: Intern/Student Life Services
 COOP 371: Co-op/Student Affairs
 COOP 471: Intern/Student Affairs
 COOP 372: Co-op/Academic Support Services
 COOP 472: Intern/Academic Support Services
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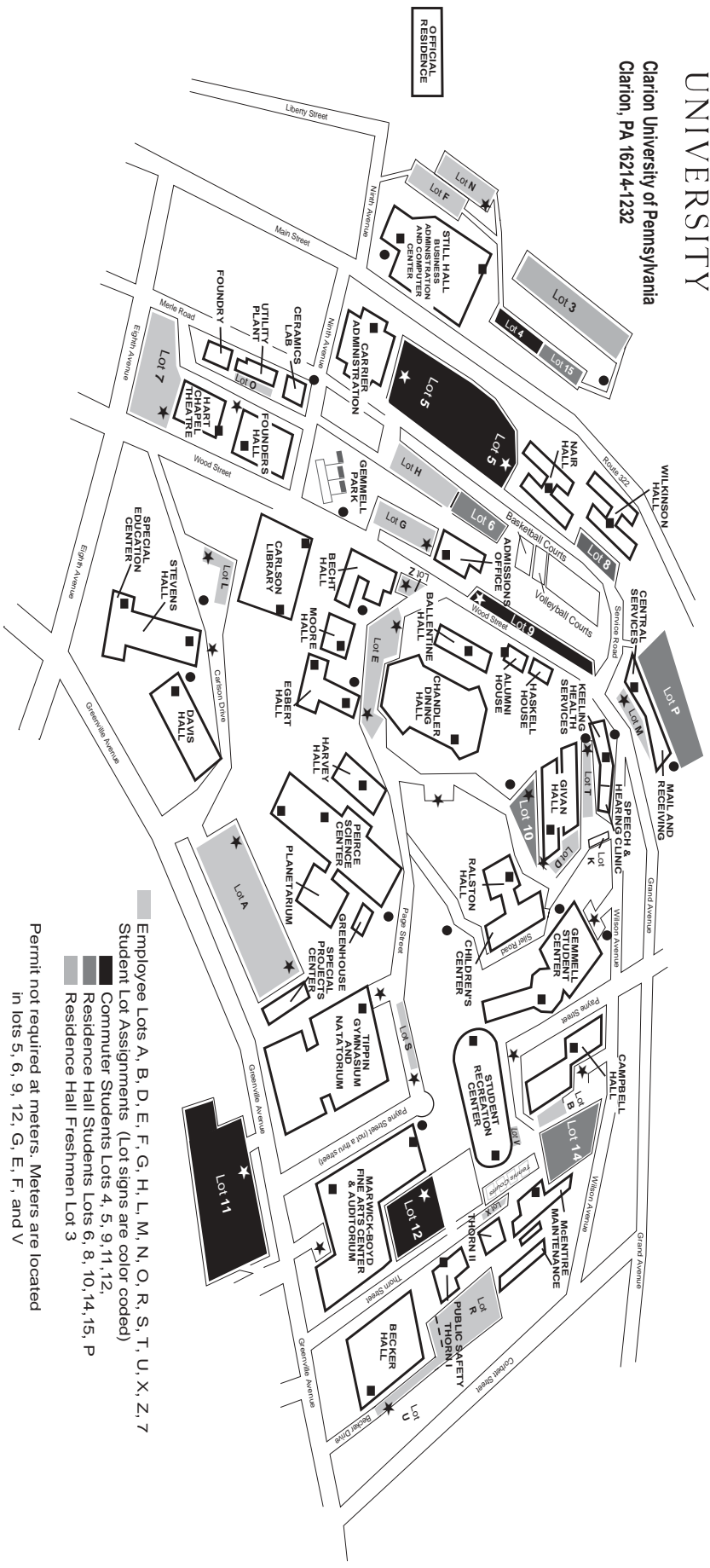
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CLARION UNIVERSITY

Clarion University of Pennsylvania
Clarion, PA 16214-1232



OFFICIAL RESIDENCE

- Employee Lots A, B, D, E, F, G, H, L, M, N, O, R, S, T, U, X, Z, 7
 - Student Lot Assignments (Lot signs are color coded)
 - Commuter Students Lots 4, 5, 9, 11, 12
 - Residence Hall Students Lots 6, 8, 10, 14, 15, P
 - Residence Hall Freshmen Lot 3
- Permit not required at meters. Meters are located in lots 5, 6, 9, 12, G, E, F, and V
- Physical Accessibility of University Facilities
- Wheelchair accessible buildings
 - ★ Handicap Parking
 - Emergency Phones

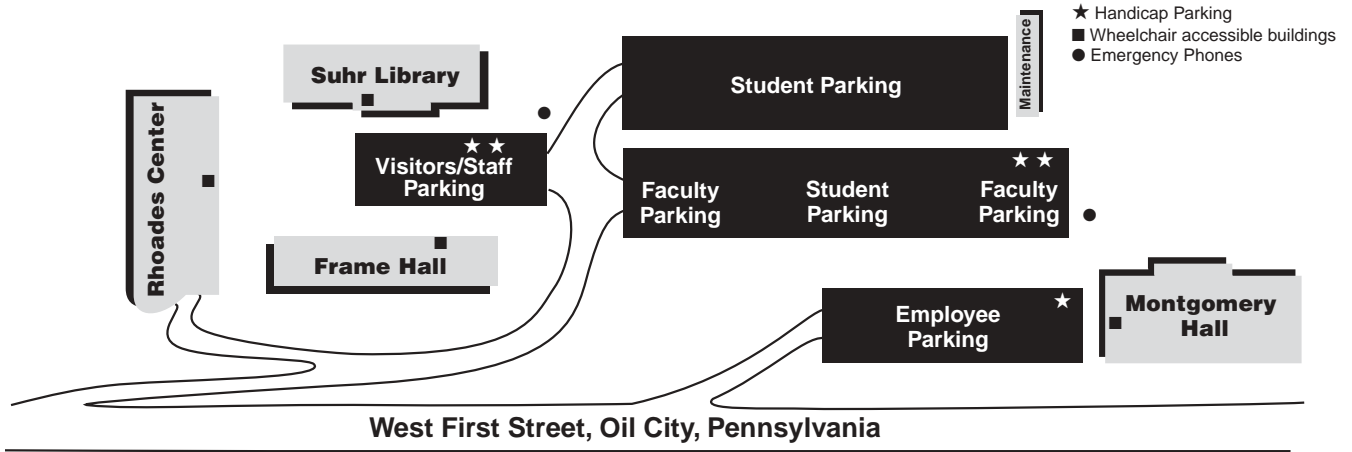
Clarion Campus Map and Facilities

Clarion Campus Facilities

- ADMISSIONS BUILDING**, located on Wood Street, houses Admissions operations.
- ALUMNI HOUSE**, on Wood Street, contains offices for the Alumni Association and Public Affairs.
- BALLENTINE RESIDENCE HALL**, located on Wood Street, houses 116 men.
- BECHT RESIDENCE HALL**, on Wood Street, houses 160 women plus faculty offices for International Programs and Academic Counseling.
- BECKER HALL**, at Greenville Avenue and Thorn Street, houses the Communication Department and the Computer Information Science Department.
- CAMPBELL RESIDENCE HALL** houses 450 students. It is located at the corner of Payne and Wilson Avenues. The basement houses offices and computer/tutorial areas for Academic Support Services.
- CARLSON LIBRARY** is on the central campus just off Wood Street. (See page 7.) 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 Ninth 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.
- CENTRAL SERVICES**, located on Wood Street, houses Publication Offices, duplicating center and print shop, and mailroom operations.
- CHANDLER DINING HALL** is north of Wood Street behind Ballentine Hall.
- DAVIS HALL**, on Greenville Avenue, has classrooms and offices for the English Department and the Modern Languages Department.
- 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 behind Chandler Dining Hall, houses 250 women.
- HART CHAPEL THEATRE** is located on Wood Street and Eighth Avenue.
- HARVEY HALL** is on center campus between Peirce Science Center and Chandler Dining Hall and houses offices and classrooms for the Psychology Department and Women's Studies program.
- HASKELL HOUSE**, on Wood Street, houses the offices of the vice president for university advancement and staff and the Clarion University Foundation.
- 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.
- 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 Communication Sciences and Disorders 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.
- PEIRCE SCIENCE CENTER AND PLANETARIUM** between Greenville Avenue and Chandler Dining Hall, provides modern classrooms, laboratories, and offices for the Departments of Biology, Chemistry, AGES, and Mathematics; a 250-seat lecture hall; and a planetarium.
- RALSTON RESIDENCE HALL** houses 200 students and is situated on the hill just behind Chandler Dining Hall. The Earl R. Siler Children's Learning Center, featuring a day care center for student and employee children, is located on the ground floor.
- RECREATION CENTER**, a facility opened in 1999, is located on Payne Street next to Campbell Hall. 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 which temporarily housed library services during the Carlson renovation and expansion project (2000-2001).
- 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 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.
- WILKINSON RESIDENCE HALL** houses 450 students on the Main Street area of the campus. The basement houses offices for the Clarion Alliance for Telecommunications Services.

Venango Campus
 Clarion University of Pennsylvania
 1801 West First Street
 Oil City, PA 16301-3297

CLARION
 UNIVERSITY



Venango Campus Facilities

- RICHARD C. FRAME CLASSROOM BUILDING**, the original building, contains the administrative office, admission and financial aid, continuing education, conference room, classrooms, laboratories, and SeniorNet Learning Center.
- ROBERT W. RHOADES CENTER** provides student lounge and recreation facilities, a gymnasium, an auditorium-theatre, bookstore, and snack bar.
- THE CHARLES L. SUHR LIBRARY BUILDING** provides library, study facilities, and faculty offices.
- MONTGOMERY HALL** is a modern classroom and office building which houses the School of Nursing, Student Development Services, the campus computer laboratory, the Learning Center, the interactive video classrooms, and faculty offices.

Venango Campus Map and Facilities