

Clarion University of Pennsylvania

GRADUATE CATALOG



GRADUATE CATALOG

2009-2011

Clarion University of Pennsylvania

Clarion, Pennsylvania 16214-1232

814-393-2000

www.clarion.edu

Accreditations, Approvals, Certifications, Affiliations, and Registrations

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

- National Council for Accreditation of Teacher Education (NCATE)
College of Education and Human Services/Teacher Education Programs
- National Council for the Social Studies (NCSS)
College of Education and Human Services/Social Studies
8555 Sixteenth Street, Silver Spring, MD 20910
- National Council of Teachers of English (NCTE)
College of Education and Human Services/English Education
1111 Kenyon Road, Urbana, IL 61801-1096
- National Council of Teachers of Mathematics (NCTM)
College of Education and Human Services/Mathematics Education
1906 Association Drive, Reston, VA 20191-1502
- National Council on Economic Education (NCEE)
Center for Economic Education (affiliated)
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
- National Science Teachers Association (NSTA)
College of Education and Human Services/Science Education and Secondary Science Education
1840 Wilson Boulevard, Arlington, VA 22201-3000
- Pennsylvania Department of Education/College of Education & Human Services/
Teacher Certification Programs (approved)
- U.S. Department of Education (approved)
- U.S. Department of Veterans Affairs (approved)

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Clarion University
Academic Calendar 2010-11
 (Subject to change without notice)

Clarion University
Academic Calendar 2009-10
 (Subject to change without notice)

Fall Semester 2009

Registration for day and evening classesMonday, August 31
 Classes begin — 8 a.m.Monday, August 31
 Labor Day HolidayMonday, September 7
 Mid-semester break begins — 10 p.m.Thursday, October 1
 Mid-semester break ends — 8 a.m.Monday, October 5
 Thanksgiving holiday begins — 10 p.m.Tuesday, November 24
Friday classes meet in place of Tuesday classesTuesday, November 24
 Thanksgiving holiday ends — 8 a.m.Monday, November 30
 Classes end — 10 p.m.Friday, December 11
 Final examination period beginsMonday, December 14
 Final examination period ends — 10 p.m.Friday, December 18
 Semester ends — 10 p.m.Friday, December 18
 Winter CommencementSaturday, December 19
 Semester grades due from faculty — 12 p.m.Wednesday, December 23

Winter Intersession

Registration and Drop addMonday, December 21
 Classes beginMonday, December 21
 Final ExamsMonday, January 11
 Semester grades due from faculty — 12 p.m.Thursday, January 14 at noon

Spring Semester 2010

Martin Luther King, Jr. Birthday observed (no classes)Monday, January 18
 Registration for day and evening classesTuesday, January 19
 Classes begin — 8 a.m.Tuesday, January 19
 Winter holiday begins — 10 p.m.Friday, March 5
 Winter holiday ends — 8 a.m.Monday, March 15
 Classes end — 10 p.m.Monday, May 3
 Final examination period begins — 8 a.m.Tuesday, May 4
 Final examination period ends — 10 p.m.Friday, May 7
 Semester ends — 10 p.m.Friday, May 7
 Spring CommencementSaturday, May 8
 Semester grades due from faculty — 12 p.m.Thursday, May 13

Summer Sessions — 2010

Session I: Pre-session May 10–May 27
 Session I: Regular session June 7–July 9
 Session II: Regular session July 12–August 12

Fall Semester 2010

Registration for day and evening classesMonday, August 30
 Classes begin — 8 a.m.Monday, August 30
 Labor Day HolidayMonday, September 6
 Mid-semester break begins — 10 p.m.Thursday, September 30
 Mid-semester break ends — 8 a.m.Monday, October 4
 Thanksgiving holiday begins — 10 p.m.Tuesday, November 23
Friday classes meet in place of Tuesday classesTuesday, November 23
 Thanksgiving holiday ends — 8 a.m.Monday, November 29
 Classes end — 10 p.m.Friday, December 10
 Final examination period beginsMonday, December 13
 Final examination period ends — 10 p.m.Friday, December 17
 Semester ends — 10 p.m.Friday, December 17
 Winter CommencementSaturday, December 18
 Semester grades due from faculty — 12 p.m.Thursday, December 23

Winter Intersession

Registration and Drop addMonday, December 20
 Classes beginMonday, December 20
 Final ExamsWednesday, January 12
 Semester grades due from faculty — 12 p.m.Friday, January 14 at noon

Spring Semester 2011

Martin Luther King, Jr. Birthday observed (no classes)Monday, January 17
 Registration for day and evening classesTuesday, January 18
 Classes begin — 8 a.m.Tuesday, January 18
 Winter holiday begins — 10 p.m.Friday, March 4
 Winter holiday ends — 8 a.m.Monday, March 14
 Classes end — 10 p.m.Monday, May 2
 Final examination period begins — 8 a.m.Tuesday, May 3
 Final examination period ends — 10 p.m.Friday, May 6
 Semester ends — 10 p.m.Friday, May 6
 Spring CommencementSaturday, May 7
 Semester grades due from faculty — 12 p.m.Thursday, May 12

Summer Sessions — 2011

Session I: Pre-session May 9–May 26
 Session I: Regular session June 6–July 8
 Session II: Regular session July 11–August 11



General INFORMATION

Core Values of Clarion University of Pennsylvania

1. We believe in the learning potential of all of 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 of 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
4. recognize the contributions of staff in providing the necessary support for that endeavor.
5. 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,
Clarion University, January 18, 2001*

Vision of Clarion University

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,
Clarion University, January 18, 2001*

Mission of Clarion University

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 to 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 education 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,
Clarion University, January 18, 2001*

Graduate Studies Mission

Clarion University recognizes the role that a high quality graduate program plays in maintaining excellence in the institution. The opportunity to work with graduate students, the challenge to remain at the forefront in the discipline, and the stimulus resulting from research all contribute to the recruitment, development, and retention of a concerned, productive faculty. Clarion University shall maintain a graduate program that supports the goals of the university.

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, D.C. 20201).

Clarion Campus

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

Today, Clarion University is a multi-purpose institution with an enrollment of approximately 7,100 students offering associate's degrees in five areas; more than 90 baccalaureate programs leading to degrees in the arts, fine arts, nursing, and sciences; and 10 graduate programs leading to master's degrees in the arts, business administration, education, library science, nursing, and sciences.

The main campus of the university contains 99 acres and 43 buildings—the majority of which were constructed within the past 20 years. 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 2.5 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. The rolling wooded countryside, interspersed with small farms, affords some of the most enjoyable outdoor activities to be found anywhere in northwestern Pennsylvania, and the Clarion River provides an excellent setting for summer boating, swimming, and other aquatic sports.

Among facilities supporting programs at Clarion University are the Carlson and Suhr libraries; the Center for Computing Services operating Digital Equipment Corporation computers and associated equipment; several microcomputer laboratories; a planetarium; modern science laboratories having excellent instrumentation; well-equipped support areas for special education and speech pathology and audiology; a modern business administration building; technologically equipped classrooms for library science; radio and television studios and experimental audio-visual facilities in the Department of Communication; and a writing center, tutorial services, and a counseling center to assist students who can benefit from these services.

Clarion University–Venango Campus

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

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

To earn 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 associate degrees in administration technology, allied health, arts and sciences, business administration, criminal justice, early childhood education, industrial technology, legal business studies, nursing, rehabilitative services, and respiratory care. An Honors Program for students with high academic potential offers an enhanced college experience.

Students may also complete the first two years of study toward any of Clarion University's 90-plus bachelor's degree programs. Complete baccalaureate degrees offered at Clarion University–Venango Campus include medical imaging sciences, nursing, and liberal studies. A Master of Science in Nursing degree is offered with Nurse Practitioner and Nursing Education concentrations. Graduate programs and courses are offered for specific student cohorts.

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

Clarion University–Virtual Campus

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

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



GRADUATE STUDY AT CLARION UNIVERSITY

Eligibility for Admission

Individuals seeking regular full admission to a graduate program must meet the minimum admission requirements for the Division of Graduate Studies and any additional requirements of the program. To meet the minimum requirements for admission to the Division of Graduate Studies an applicant must provide evidence of:

- A bachelor's degree or its equivalent from an acceptably accredited college or university. Individuals who have not yet completed the baccalaureate degree

may submit transcripts for course work completed, along with application materials. Final transcripts noting the completion of the degree will be required.

- A minimum quality-point average (QPA) of 2.75/4.00 at the undergraduate level. Some programs require a higher undergraduate QPA. Please review the program admission requirements listed elsewhere in this catalog.

Individuals not meeting the QPA requirement of a graduate program may be eligible for regular

admission when the lower QPA is evaluated in terms of supplementary factors, including recommendations/references, examination scores on such instruments as the Graduate Record Examination, Graduate Management Admission Test, and/or the Miller Analogies Test, or achievement in graduate-level course work.

Information regarding the Miller Analogies Test (MAT), the Graduate Record Examination (GRE), and the Graduate Management Admission Test (GMAT) may be obtained from the Graduate Studies office.

Applicants should refer to the admission requirements of specific programs as listed in this bulletin.

Categories of Admission

Admitted applicants will be classified in one of the following categories of admission.

Regular Full Admission

Individuals meeting all of the admission requirements for a graduate program shall be granted regular full-admission status. Only individuals with regular full-admission status are eligible for graduate assistantships. Individuals must achieve regular full-admission status before they graduate. A student may apply and be admitted to a graduate program during his/her last year of undergraduate study. This admission, however, is contingent upon the student providing the Graduate Studies office an official final undergraduate transcript that indicates the baccalaureate degree has been awarded.

Provisional Admission

Individuals not meeting all of the admission requirements for a graduate program may be admitted on a provisional basis. In such cases, admission will be based upon specific conditions that the student must meet in order to be reclassified as regular full admission. Individuals admitted on a provisional basis are not eligible for graduate assistantships. Individuals admitted on a provisional basis are not guaranteed regular full-admission status.

Courtesy/Transient Admission

A graduate student from another institution may enroll for graduate courses at Clarion University on a courtesy basis if he or she intends to transfer the credit for the course to another institution. Information about courtesy admission may be obtained from the Division of Graduate Studies.

Non-Degree Status Admission

Occasionally individuals will want to engage in graduate study without formally entering a graduate program. Such individuals should apply for a non-degree admission status at the time of application. All admission

requirements must be met. Individuals remaining in this status may not receive a graduate degree. Courses taken while a person is in this status will be identified as non-degree on the student's transcript. The non-degree student who, after taking courses in non-degree status determines to seek a graduate degree, must be formally admitted to a graduate degree program under regular admission procedures. Graduate programs may or may not accept courses taken while a student is in non-degree status. No program may accept more than nine credits taken in non-degree status. Applicants admitted on a non-degree basis are not guaranteed regular full-admission status. Certain course restrictions may apply for non-degree students.

Admission Procedures

Application forms and information about graduate programs may be obtained by writing to:

Division of Graduate Studies
Clarion University of PA
840 Wood Street, Clarion, PA 16214-1232

Routine admission policy requires that all graduate applicants submit:

1. a completed application form;
2. an official transcript from each college or university attended as an undergraduate or graduate student (regardless of whether or not a degree was earned). Official transcripts are issued from colleges/universities in sealed envelopes with the seal of the university and the signature of the registrar on the outside of the envelopes. The transcripts must be sealed by the registrar and remain sealed until their arrival in the Graduate Studies office. Partial transcripts are acceptable, but evidence of a degree must be submitted before a student may enroll in classes;
3. at least three current faculty and/or professional recommendations on the Clarion University recommendation forms;*
4. a \$30 non-refundable application fee; and
5. a resume.

Some graduate programs require additional information or procedures.

*May not be required of non-degree students.

All documents become the property of Clarion University and will not be returned or duplicated for any purpose outside the university. Each application must be for one program only. An additional complete application packet including the \$30 fee must be submitted if you are applying to more than one program. Following one semester of enrollment, if you want to change to another graduate program you must resubmit all application materials (including \$30 fee) as previously outlined. Applications will be reviewed only after all materials have been received.



Admission Application Deadlines for Regular, Provisional, Transient, and Non-Degree Admissions

The following deadlines apply to graduate applicants.*

Biology applicants: April 1—last date to complete an application file for the upcoming fall term and consideration for graduate assistantships. Nov. 1—last date to complete an application file for the upcoming spring term..

Nursing applicants:

Early Admission Deadline—Nov. 1;
Regular Admission—April 1;
RN-MSN Deadline—April 1.

Speech Language Pathology applicants: Jan. 31—last date to complete an application file for upcoming academic year.

Other programs

Fall: Aug. 1—last date to complete an application file

Spring: Dec. 1—last date to complete an application file

Summer: May 1—last date to complete an application file for Summer I
June 1—last date to complete an application file for Summer II

*International students must complete an application file at least four months before the term applicant wishes to begin study. See section below on “Admission of International Students.”

Admission of International Students

Clarion University is authorized under federal law to enroll nonimmigrant students. The university welcomes international students to its campus and has an Office of International Programs to assist students from other countries in achieving a successful educational experience at Clarion. International students may write to:

Office of International Programs
Clarion University of Pennsylvania
840 Wood Street
Clarion, PA 16214-1232 U.S.A.

International students seeking admission to graduate study at Clarion University should follow directions specified for all students under each program’s “Admission Requirements” and “Degree Requirements.” In addition, the international student applicant must satisfy the following requirements:

1. Submit his or her application for admission **at least four months before** the term in which he or she wishes to begin study at Clarion.
2. International applicants must provide evidence of a bachelor’s degree or its equivalent from an acceptably accredited college or university. International applicants must have their complete academic records (transcripts, mark sheets, certificates) evaluated by one of the following professional credential evaluating services:

World Education Services (WES) (www.wes.org)
or Educational Credential Evaluators, Inc. (ECE)
(www.ece.org)

Applicants should request WES or ECE to forward evaluation results directly to the Clarion University Graduate Admissions Office.

3. A minimum quality-point average (QPA) of 2.75/4.00 scale at the undergraduate level. Some programs require a higher undergraduate QPA. Please review the program admission requirements listed on the “Checklist for Completion of Graduate Application.” Individuals not meeting the QPA requirement of a graduate program may be eligible for regular admission when the lower QPA is evaluated in terms of supplementary factors, including recommendations, examination scores on such instruments as the Graduate Record Examination (GRE), Graduate Management Admission Test (GMAT), and/or the Miller Analogies Test (MAT), or achievement in graduate-level course work. Information regarding the GRE, GMAT, or MAT may be obtained from the Division of Graduate Studies.
4. Demonstrate English language proficiency. Acceptable evidence of proficiency is successful completion of Test of English as a Foreign Language (TOEFL) with a minimum score of 550 (paper-based test), 213 (computer-based test), or a minimum International English Language Testing System (IELTS) score of 7.0. For the programs in biology, speech language pathology, and communication, TOEFL scores of 600 (paper-based test), 250 (computer-based test), or IELTS score of 7.5 are required. Satisfactory completion of a bachelor’s degree from an accredited U.S. university or college is also acceptable evidence of English language proficiency. Additionally, speech language pathology requires a score of 200 on the Test of Spoken English (TSE). Other evidence may be approved by the Graduate Studies office, such as affirmation of proficiency by a Clarion faculty member, other individual, or organization known to Clarion University.
5. Furnish evidence of adequate financial support on the Financial Support Statement form. The applicant must provide an official statement from an authorized bank certifying that sufficient funds are available to the student to cover costs of university fees and general living expenses for one academic year of study in the United States. Immigration form I-20 will not be issued until the international applicant has submitted the required evidence of financial support.
6. Carry a full program of studies (at least nine semester hours) upon admission and matriculation. The Bureau of Citizenship and Immigration Services regulations require students holding an “F” or “J” visa to carry a full program of study.
7. Be covered by adequate health insurance. Due to the high cost of health care in the United States, all international students are required to carry comprehensive medical insurance. For further

information on insurance, see section entitled “Student Health Insurance” on page 14.

Academic Policies and Procedures

Academic Honesty Policy

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

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

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

Any member of the academic community may bring complaints of academic dishonesty against a student. Sanctions for academic dishonesty can range from a failing grade on a particular assignment or examination to dismissal from the university based on the seriousness of the action and whether it is part of a pattern of academic dishonesty. Instructors imposing a lowered or failing grade on an assignment or course because of a charge of academic dishonesty must inform the student. Students have the right to appeal instructor decisions (*Student Rights, Regulations, and Procedures Online 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.

Good Academic Standing

All graduate students are expected to remain in good academic standing by maintaining a cumulative QPA of 3.00/4.00 and earning no more than six semester hours of “C” or lower grades in graduate courses.

Students who do not maintain a cumulative QPA of 3.00/4.00 and/or who earn more than six hours of credit with grades below a “B” are automatically placed on probation. A student placed on probation must return to “good academic standing” through grades earned in course work during the next semester or summer session in which he or she enrolls. A student may be removed from probation by:

- A. Taking additional courses in his or her program and earning grades sufficient to raise the cumulative QPA to 3.00/4.00 or above. This single measure may be sufficient unless the student has more than six semester hours of “C” grades.
- B. Repeating courses in which the original grade is less than “B.” A repeat course grade will replace the original grade for quality-point calculations. A maximum of six semester hours of credit may be repeated. Library science students receiving a grade of less than “B” in two courses are disqualified as a candidate in that degree program.

Failure to meet this requirement will result in the student being dropped from the graduate program in which he or she is enrolled.

A student placed on probation automatically loses his or her graduate assistantship. A reapplication for an assistantship will be required once he or she has returned to “good academic standing.”

Transfer of Credit

Some graduate programs allow students to transfer credit for graduate courses taken at other regionally-accredited institutions for coursework of higher academic caliber in accepted fields of study. It is university policy that no more than 30 percent of the total credits for a degree may be transfer credits. The course(s) taken must be recognized in content and quality as similar to Clarion University’s approved academic credit. The credits must be capable of counting toward a graduate degree at the sponsoring institution. Course credit will not be transferred until the course has been evaluated and approved. A student enrolled in a degree program at Clarion who wishes to take a course at another institution for transfer to Clarion should obtain prior approval from his/her academic advisor, department chair, and the

college and graduate deans (see transfer credit form for approval process). The student is required to furnish a complete description of the intended transfer course(s) usually through a catalog description and the syllabus of the course(s) for which he/she is requesting transfer credit.

Courses transferred must be certified as graduate level on the official transcript and must have a grade of “B” or better. Transfer credit course grades are not computed in the Clarion QPA and all transfer credits will be calculated in semester hours. The proposed transfer credit must not be more than six years old at the time of completion of the degree program at Clarion University. Courses already credited toward an earned degree may not be used for a second degree.

The following types of courses are not accepted for transfer credit: correspondence course credit, pass/fail grades, and workshop courses. Graduate Transfer Credit Request forms are available in the Graduate Studies office.

Residency

Seventy percent of all credits required for completion of a graduate degree must be earned in course work offered by Clarion University. All graduate-degree programs require a minimum of 30 semester hours of credit. Individual programs may require more than 30 semester hours.

Timeliness of Enrollment and Completion of Degree

It is expected that an applicant admitted to graduate study will enroll for course work at once. Students who do not enroll at Clarion for graduate courses in programs to which they are admitted within 12 months following admission may be required to reapply before they can enroll. Information about eligibility to enroll in classes may be obtained from the Graduate Studies office.

A degree must be completed within six years from the date of initial enrollment. Extensions may be allowed only by approval of the department chair, dean of the college in which the student’s program resides, and the dean of Graduate Studies.

Full-Time Status

A graduate student enrolled in nine semester hours of course work in a term is considered a full-time student.

Graduate Credit Load

The policy regarding credit load for graduate students is to limit students to a maximum of 12 graduate credit hours per semester. Students who wish to enroll for more than 12 graduate credit hours must have the approval of the graduate program coordinator, the college dean, and dean of graduate studies.



400-Level Courses

Not all 400-level courses can be taken for graduate credit. Students should consult with graduate program coordinators or the Graduate Studies office to determine 400-level courses that have been approved for graduate credit. These approved 400-level courses are listed each semester in the graduate section of the published Schedule of Classes. *Note: courses taken at the 400-level for undergraduate credit cannot be repeated for graduate credit.* The maximum number of 400-level courses accepted toward degree requirements varies among the graduate programs. See specific program descriptions and requirements.

Withdrawals

All class withdrawals must be made through the Office of the Registrar, 122 Carrier Administration Building. Classes from which a student withdraws during the period of drop/add will not appear on the student's record. 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 extenuating circumstances such as illness or some other unavoidable occurrence.

If a student is on probation at the time of withdrawal from all classes and the withdrawal is after the 12th week of the semester, the student will not be permitted to return for the following semester unless the withdrawal is based on 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 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 or his or her obtaining an honorable dismissal.

Please see section on "Refund Policies," page 12, for financial implications of withdrawal.

Grading System

A	excellent
B	good
C	satisfactory
D	poor
E	failure
IP	in progress
I	incomplete work
P	passing
W	withdrawal from a course
WX	withdrawal from the university
Z	grade not submitted (Temporary)
AU	audit

Auditing Courses

With the permission of the instructor, interested students 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 before 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.

Courses taken as an audit will be recorded on the official transcript with a grade of "AU;" no credit or letter grade will be received. Graduate-level courses taken as an "audit" cannot be counted as credits in a degree program and cannot be repeated later for credit or a letter grade.

Incomplete Grades

The "I" grade may be used when a student has completed the major portion of the requirements for a given course, but for reasons beyond expected control, such as illness or family emergency, cannot complete all requirements. Normally, incomplete grades must be removed by the end of the first semester subsequent to the awarding of the incomplete. Extensions may be granted if the instructor awarding the incomplete deems that more time is necessary to fulfill course requirements. Research and thesis incomplete grades normally continue beyond one semester.

An incomplete that is not converted to a final grade by the end of the semester following its issuance and is not approved for extension by the instructor becomes a failing grade.

No one may be cleared for graduation with "I" grades on record.

In Progress Grades

The grade “IP” is given for thesis work and/or courses at the graduate level that might take more than a semester for completion. The grade “IP” is given only when the work in a course extends beyond the semester or term originally scheduled. It implies satisfactory performance. The grade “IP” will not alter the QPA of the student since hours attempted, hours earned, and quality points earned will be entered in cumulative totals once the final grade is submitted. The “IP” grade shall remain on the student’s transcript until the instructor submits a grade.

Advisement

Upon admission to a graduate program, a student is assigned an advisor. The advisor will assist the student in planning an individual program and in maintaining progress within the program.

Research, Theses, and Comprehensive Examinations

The individual graduate programs within the university establish research, theses, and/or comprehensive examination requirements. The student should refer to the section of this catalog presenting specific programs to determine exact requirements.

Student Responsibility for Academic Requirements

Provisions in the *Clarion Graduate 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 the general education requirements as published in the catalog when they matriculate. 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. 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.

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 ensures that:

1. no qualified individual with a disability may be excluded solely by such disability from any course, or courses of study;*
2. classes will be rescheduled 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 students with disabilities;* and
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, students must provide the university with the necessary medical and diagnostic information to support their requests, including specifying what academic adjustments are needed.*

The Office of Disability Support Services (DSS) functions as the university’s primary vehicle for assisting students with physical and/or learning disabilities. Students must initiate the process of receiving accommodations by contacting the coordinator of Disability Support Services, located in 102 Ralston Hall. Also, as part of the university’s registration process, students are provided with a confidential questionnaire that enables them to notify the university of possible accommodations and services that are related to a disabling condition. Students should return these forms to the office of the Registrar. In addition, students must contact the DSS office to submit proper documentation and discuss requested accommodations. Students should contact the DSS office far enough in advance to allow sufficient time to coordinate accommodations.

Information on services for students with disabilities may be obtained by contacting the Coordinator of Disability Support Services, 102 Ralston Hall, 814-393-2095.

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

Student Support Services Program

The Student Support Services Program is available to students with disabilities who desire additional help in the form of academic advising, freshmen seminars, informational workshops, and assistance with study skills. Students interested in obtaining information about the program should contact the director, Student Support Services Program, 104 Ralston Hall, 814-393-2347.

Tuition and Fees for Graduate Study

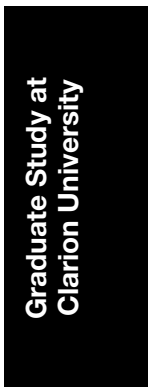
Tuition and fees are subject to change without notice. Payments can be made by cash, check, money order, or credit card. Credit card payments can be made on the Clarion University iPortal at www.iclarion.clarion.edu. Tuition and fees not covered by financial aid are to be paid at the beginning of the semester or session.

Summary of Tuition and Fees (Per Semester) 2009-2010 Academic Year

- I. APPLICATION FEE (non-refundable).....\$30
- II. BASIC GRADUATE TUITION (subject to change without notice)
 - Pennsylvania residents:**
 - Full-time (9-15 credits)\$3,333
 - Each additional credit over 15\$370
 - Part-time per credit (fewer than 9 credits)\$370

Non-Pennsylvania residents and international students:

- Full-time (9-15 credits)\$5,333
- Each additional credit over 15\$593
- Part-time per credit (fewer than 9 credits)\$593
- III. RESIDENCE HALL AND DINING FEES
 - Residence (double room)\$2,174
 - Four-person shared suite\$3,250
 - Dining (standard 19-meal plan)\$1,021
 - All residence hall and suite students must pay for both housing and dining.
- IV. TECHNOLOGY FEE
 - Full-time Pennsylvania resident.....\$103
 - Full-time non-Pennsylvania resident and International\$155
 - Part-time Pennsylvania resident.....\$60
 - Part-time non-Pennsylvania resident and International\$82
- V. INSTRUCTIONAL SUPPORT FEE
 - Full-time (9-15 credits)\$499.95
 - Each additional credit over 15\$ 55.50
 - Part-time per credit (fewer than 9 credits) ...\$55.50
- VI. HEALTH CENTER FEE
 - Full-time (9-15 credits)\$91.64
 - Each additional credit over 15\$ 10.18
 - Part-time per credit (fewer than 9 credits) ...\$10.18
- VII. STUDENT CENTER FEE
 - Full-time (9–15 credits)\$183.28
 - Each additional credit over 15\$20.36
 - Part-time per credit (fewer than 9 credits) ...\$20.36
- VIII. STUDENT ACTIVITY FEE
 - 1–8 credits\$39.50
 - 9 or more credits\$79
- IX. RECREATION CENTER FEE
 - 1–8 credits\$11.11 per credit
 - 9–15 credits\$99.97
- X. TRANSCRIPT FEE (one-time charge)\$15
 - Transcript release is limited to a maximum of three per request per day.
- XI. LATE FEE\$100
 - A \$50 late fee will posted 30 days after the start of the semester to accounts with unpaid balances in excess of \$250. Additional \$25 late payment fees to accounts with unpaid balances in excess of \$250 at 60 and 90 days after the start of the semester.
- XII. THESIS BINDING.....\$54.60
 - Minimum three copies at approximately \$18.20 per copy. Final cost subject to change.
 - Payment to be made when thesis submitted to Graduate Studies for binding.
- XIII. GRADUATION FEE.....\$15
 - A graduation fee is charged to each graduating student.



Refund Policies

Basic Fees, University Residence Hall, Dining Charges, and Student Activity Fee

Refunds are not granted on an automatic basis. A student eligible for a partial refund of basic fees and residence hall charges must officially withdraw from the university through the Registrar's Office, located in 122 Carrier Administration Building. Refunds of 100 percent are granted only if student withdraws by the end of the first day of the semester.

Partial refunds approved for payment are based upon percentage of tuition and fees charged. The following schedule applies to both full-time and part-time students.

SEMESTER WITHDRAWALS

1 st week	90% refund
2 nd week	80% refund
3 rd week	70% refund
4 th week	60% refund
5 th week	50% refund
After 5 th week	0% refund

For refund purposes, a "week" is defined as each five consecutive days university classes are in session.

Policy Related to Returned Checks

It is the student's responsibility to ensure funds are available at his/her bank when a check is presented for payment. If a check is returned for insufficient funds, the student will be notified the check is uncollectible. He or she will then be required to pay the original amount plus a \$40 penalty for handling the uncollectible check. Payments made in redeeming an uncollectible check and paying the related late fee and penalty must be by certified check or money order within 10 days of notification or the student will not be permitted to attend classes.

Graduate Student Support Services

Graduate Assistantships

Each year a limited number of graduate assistantships are awarded to individuals with regular full-admission status to a graduate program. Graduate assistants work 10 or 20 hours a week in assignments related to academic programs or university-wide service. They are paid an hourly stipend and receive a tuition waiver for up to 15 credits a semester. There are no summer assistantships.

There also are a limited number of Frederick Douglass Assistantships, offered to graduates of Historically Black Colleges and Universities (HBCU). All candidates for these assistantships must meet full admission requirements to a Clarion University graduate program and be a graduate of an HBCU. All general assistantship policies apply to the HBCU positions.

Recipients of a graduate assistantship must take at least 6 credits a semester, perform assigned duties in a satisfactory manner, and remain in good academic standing. There is an approved evaluation process and instrument for each graduate assistantship position that is utilized annually. Graduate assistants are evaluated on their performance in a specific position.

Students wishing to apply for a graduate assistantship should do so at the time of application to graduate study at Clarion University. Graduate assistant application forms are included in the application for admission to graduate study packet and are available in the Graduate Studies office and academic departments.

Financial Aid

In addition to graduate assistantships, the following financial aid may be available to graduate students.

Loans

FEDERAL PERKINS LOAN PROGRAM-To be eligible for consideration for this 5 percent loan, a student 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 his or her 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 each year.

FEDERAL STAFFORD LOAN PROGRAM-Loans with a cap of 8.25 percent interest are generally available from local banks and savings and loans associations. Loans may reach a maximum of \$20,500 per academic year, with an overall limit of \$138,500 for graduate and undergraduate loans. Loans are based on need, which must be demonstrated through an approved need analysis system. Our approved form is the FAFSA application.

GRADUATE PLUS LOAN PROGRAM has the same terms and conditions as the Parent Plus Loan and is subject to a credit test. Students may borrow up to the cost of education less other financial aid received. Repayment begins after full disbursement of the loan, but loans are deferrable for in-school status. Student must complete a current FAFSA form and apply for the maximum Stafford Loan prior to being granted a Graduate PLUS Loan.

Veterans

Clarion University is approved to offer training under the various GI bills. Students who are entitled under one of these bills should contact the veterans counselor immediately after being accepted for admission to the university in order to secure additional instruction. This procedure is necessary so veterans may be included on the monthly payroll. The university veterans counselor is located in the Office of Financial Aid, 104 Egbert Hall, 814-393-2315.

Scholarships for Graduate Students

GENERAL

Clarion University Alumni Association Ross Rankin & Family Graduate Scholarships: Graduate students must be currently enrolled in one of Clarion University's graduate programs and must have completed nine graduate credit hours by the time of the application. Students must be in good academic standing, with at least a 3.0 QPA in their program. Part-time students must be enrolled for at least six credits during the semester the funds will be used. Applications are available in the Alumni Relations office and the Graduate Studies office at the beginning of each fall semester.

COLLEGE OF BUSINESS ADMINISTRATION

S&T Bank Endowed Scholarship: Established by S&T Bank for graduate students enrolled in the MBA Program offered by the College of Business Administration. Candidates must have attained a minimum college or university QPA of 3.5 and/or attained a score of 550 on the Graduate Management Admission Test (GMAT). First preference is given to Pennsylvania residents. For information, contact the MBA Program office at 814-393-2605.

COLLEGE OF EDUCATION AND HUMAN SERVICES

Communication Sciences and Disorders (CSD) Department

Marian Renn Marshall Graduate Fellowship (Graduate Students): Established through the Clarion University Foundation, Inc. in memory of Marian Renn Marshall. The award offers assistance to graduate students admitted to the speech language pathology graduate program. Selection is made by the CSD Department on the basis of academic record. For information, contact the CSD Department at 814-393-2581.

Education Department

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 Department

Information on Library Science scholarships can be obtained by contacting the department office at 814-393-2271.

Ahmad F.M. Gamaluddin Scholarship in Library Science: Established in memory of Dr. Ahmad Gamaluddin, a noted educator, librarian, scholar, and kind mentor who served on Clarion University's library science faculty for 30 years. The award is available to all qualified graduate students, both full- and part-time, who have demonstrable serious interest in international/multicultural librarianship. Selection criteria includes enrollment in the MSLS program for full- or part-time study; completion of at least six graduate credit hours with a cumulative QPA of 3.5, and a written essay explaining applicant's understanding and commitment to international and/or multicultural librarianship and how the award will help achieve a career that will focus on either. Selection is made by the department scholarship committee and payment is administered by the university's student accounts office.

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.

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.

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, Inc..

School of Nursing

Elizabeth M. McCord Scholarship: Established by the McCord family in honor of Mrs. McCord and her service to the university's Health Center. First preference is given to full-time graduate students in the M.S.N. program. Second preference is to students with six or more graduate credits each semester. The basis for selection is the student's academic record; financial need is considered secondarily. For further information, contact the School of Nursing at 814-676-6591.

University Libraries

Carlson Library on the Clarion Campus and Suhr Library on the Venango Campus have combined collections of more than 1.7 million items in various formats, including books, e-books, microforms, periodicals, media, streaming video, and electronic databases. Materials not held by the two libraries may be accessed through interlibrary loan services offered at both libraries or directly online through the libraries' Webpage. The libraries are committed to providing excellent service to users. Qualified library faculty and staff are available in the libraries' public service areas and via phone, chat, and e-mail to assist users in locating information, satisfying research needs, and effectively using instructional technologies. Library faculty also provide instruction on general library use and on research resources and strategies which are discipline specific. The libraries' Webpage (www.clarion.edu/library/) provides a gateway to scholarly resources including services which provide full text access to thousands of academic journals and services for distance learners.

- The mission of the Clarion University libraries is to:
- assist university undergraduate and graduate students, faculty, staff, and administration in conveniently locating and accessing the university's information resources and those of other sources;

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

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

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

Health Service

Keeling Health Center, accredited by the Accreditation Association for Ambulatory Health Centers (AAAH), 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 residing 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 any medications or procedures associated with the visit. Students are strongly encouraged to contact their primary insurance carrier to determine the conditions and limitations, if any, on medical treatment away from home.

Health Insurance

The health center fee includes basic provider services within the Keeling Health Center. Charges for laboratory, X-ray, outpatient or inpatient services at other facilities, and medications are not covered, and are the responsibility of the individual student. Health insurance coverage is strongly encouraged prior to enrollment at Clarion University.

In an attempt to offer students an affordable health insurance option, Clarion University has collaborated with nine other universities in the Pennsylvania State System of Higher Education to offer an economical and comprehensive insurance policy to those students not covered by a parent policy. Consolidated Health Plans (www.consolidatedhealthplan.com) has been selected as the insurance provider, and students may choose from a variety of options.

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

University policy requires that students have medical insurance coverage to be eligible for participation in university-sanctioned, sponsored and/or approved activities, including intercollegiate sports. 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.

Students interested in obtaining insurance from Consolidated Health Plans should contact the director of Health Services at 814-393-2121.

International Students—Medical Insurance Coverage

Medical insurance is required of all international students enrolled at Clarion University. Students who do not show proof of health insurance coverage comparable to Clarion University's group plan will be required to enroll in the university's plan and be responsible for payment. Students will not be allowed to complete course registration until all medical insurance requirements are met. The current cost of the group insurance plan is \$850/year, full payment of which is required at the beginning of the academic year. Please understand that the medical

insurance premium is not included in the statement of account issued by the university for tuition, fees, and room and board. A separate payment of cash or money order is required. Details of payment will be explained at the time of application for insurance.

If an international student has coverage through his or her sponsor or through another agency in his or her home country that provides adequate coverage during the student's stay in the United States as a student, the international student may request to be exempt from subscribing to the group plan offered through Clarion University. Coverage *must* include:

- *minimum medical expense benefit of \$50,000
- *minimum repatriation expense benefit of \$7,500
- *minimum medical evacuation benefit of \$10,000

Students requesting exemption from the group plan are required to submit details of insurance coverage to the Office of International Programs upon arrival at Clarion University. Details must be written in English and include the following information: company name and address, phone and fax numbers; complete name of policy holder and identification number, if assigned; effective date of coverage and expiration date of coverage; and policy benefits (as described above).

Housing

Limited housing for graduate students is available in the university-supervised residence halls. For information, students should contact the Office of Residence Life Services, 230 Egbert Hall, by telephone 814-393-2352, or e-mail reslife@clarion.edu.

Any arrangement for housing in the community is a business relationship between a student and the householder. The Office of Residence Life maintains a limited listing of available housing in the community, but the university does not approve or make recommendations related to private off-campus housing accommodations. Off-campus housing list can be found at www.clarion.edu/reslife.

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. Vehicles are immobilized for unpaid tickets.

Students who park a vehicle on university property in an area requiring a permit must register with the Department of Public Safety. A valid university parking permit must be hung down from the inside rear-view mirror and clearly be visible from the front and rear of the vehicle when the vehicle is parked in a lot requiring a permit. The enforcement of parking permit regulations for employee lots, commuter lots, and metered parking shall be from 8 a.m. until 4:30 p.m., prevailing time, Monday through Friday, unless otherwise designated. For more information on parking, visit the parking Website at www.clarion.edu/parking.

Career Services Center

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

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

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



MASTER OF SCIENCE DEGREE IN BIOLOGY

College of Arts and Sciences

Department of Biology

Andrew Keth, Ph.D., Graduate Program Coordinator
257 Science and Technology Center
Telephone: 814-393-1734
E-mail: aketh@clarion.edu
www.clarion.edu/biology

Graduate Faculty

Professors: W. Barnes, L. Bering, K. Eggleton, S. Harris,
D. Smith, A. Turner
Associate Professors: V. Bennett, D. Lott
Assistant Professors: S. Boyden, S. Nix, K. Register, C. Scott

Program Objectives

The primary objectives of the Master of Science programs in biology are to prepare individuals for leadership roles in environmental, educational, and laboratory-oriented sciences.

Candidates for the Master of Science degree can opt for a concentration in either biological sciences or environmental sciences. Each concentration includes a thesis and non-thesis option.

Definition of Terms

Departmental Graduate Committee

Committee which reviews all applications for admission to the M.S. in biology program and makes recommendations to the department concerning admission of students and the existence of deficiencies.

Graduate Program Coordinator

A designated advisor in the Department of Biology who meets all new graduate students and assists them in planning their first semester program of courses and/or recommends them to major advisors when desirable.

Major Advisor

A member of the graduate faculty who accepts a student for counseling and advisement during his or her course work and research and in the presentation and defense of his or her thesis.

Graduate Research Committee

A committee of at least three members selected from the graduate faculty to aid the student in determining a course of study and to prepare, administer, and evaluate the student's thesis. The student's major advisor will chair this committee.

Admission Requirements

Applicants who have a bachelor's degree in a field within the natural sciences including 15 biology credit hours comparable to the department's freshman and sophomore core, a 3.0 overall QPA on a 4.0 scale, and a combined score of 1,000 on the Graduate Record Examination are eligible for full admission. The natural sciences are defined here as including anthropology, biology, chemistry, environmental biology, geology, geography, mathematics, molecular biology, physics, wildlife biology, and related fields. Applicants who do not meet the above requirements but have an overall QPA of 2.75 on a 4.00 scale or a combined score of 1,000 on the Graduate Record Examination may be granted provisional admission with a majority vote of the biology faculty. For full consideration, applications must be received by April 1 for Fall admission and November 1 for Spring admission.

Students will be assigned a biology faculty member who agrees to serve as his/her major advisor. It is strongly recommended students visit the campus and interview with potential advisors early in the application process. Any programmatic deficiencies of students admitted into the program will be identified by their graduate committee and remedied by the student through appropriate coursework.

Degree Requirements

M.S. in Biology: Biological Sciences Concentration

Thesis option:

1. Complete a total of 30 semester hours including at least 24 hours in upper-level/graduate courses and

seminars and at least six hours of Research and Thesis (BIOL 700). Two Graduate Seminars (BIOL 500) must be completed, one of which must be outside of the student's research emphasis.

2. Conduct an original research project; submit and defend a thesis. Before beginning the research, the student must present and defend the proposed project in a seminar open to the university community.

Non-thesis option:

This option is designed for prospective medical students, elementary and high school teachers, and others who wish to further their knowledge of biology at an advanced level but do not desire careers in research.

1. Complete a total of 30 semester hours including at least 24 hours in upper-level/graduate courses. Complete at least two hours of Graduate Seminar (BIOL 500).
2. Complete an independent study project or complete and report on an internship for at least two hours credit.

M.S. in Biology: Environmental Science Concentration

Thesis option:

This option is designed for students whose career goals include research or graduate study in environmental science. This interdisciplinary option will be a cooperative effort between the Department of Biology and the Department of Anthropology, Geography and Earth Science.

1. Complete a total of 30 semester hours including at least 24 hours in courses and seminars in required areas and at least six hours of Research and Thesis (ENVR 700). Required course areas include:
 - **Natural and Physical Sciences:** complete at least 12 hours of approved courses in anthropology, biology, earth science, geography, chemistry, or physics, three hours of which must be a field experience.
 - **Quantitative Methods:** complete at least six hours of approved courses in statistics, mathematics, remote sensing, or geographic information systems.
 - **Policy, Planning, Communication, and Social Sciences:** complete at least three hours of approved courses.
 - **Graduate Seminar (ENVR 500):** complete one to two semesters for at least two hours.
2. Conduct an original research project; submit and defend a thesis. Before beginning the research, the student must present and defend the proposed project in a seminar open to the university community.

Non-thesis option:

This option is designed for returning environmental professionals who desire advanced training to enhance their career potential, elementary and high school teachers

who wish to enhance their background in content areas, and others who wish to further their knowledge of environmental science but do not anticipate a career in research.

1. Complete a total of 30 semester hours of courses, seminars, and independent study or internship. Courses must cover the required content areas prescribed for the environmental science thesis option, including at least three hours of field experience.
2. Complete an independent study or complete and report on an internship for at least two hours.

When a preliminary draft of the thesis is judged by the major advisor to be suitable, the candidate will provide each member of his or her committee with a copy of the preliminary draft. The date of the oral thesis defense must be announced to the general college faculty at least two weeks before the defense. The defense will be conducted by the graduate research committee, which will report its approval or disapproval along with recommended revisions. At least five copies of the final draft of the thesis shall be prepared by the student, who will deliver them to the major advisor who will obtain the appropriate signatures and deliver the copies to the Division of Graduate Studies. The Division of Graduate Studies will charge a binding fee to the student.

Only 400-, 500-, 600-, and 700-level courses can be taken for graduate credit. No more than six semester hours of approved 400-level courses taken for graduate credit may count toward the master's degree (see below).

Placement

A great need for good professional biologists exists at the present, and should continue into the near future. Projections by both industry and federal government sources indicate that the need for life scientists and health workers should increase. The need for individuals with additional or more specialized training than required for a B.A. or B.S. degree is increasing. Placement of past graduates of the program has been excellent in teaching and research; federal, state, and local government; private industry; medical technology; dentistry; optometry; and doctoral and specialist programs.

Graduate Assistantships

A limited number of graduate assistantships and/or research assistantships are available. Departmental graduate assistants are assigned to assist in laboratory supervision in the undergraduate program in biology. Research assistants generally work on a grant-funded project directed by a faculty member. Graduate assistants must have full-admission status.

All applicants for graduate assistantships must first complete the regular admission procedure and submit the application for a graduate assistantship to the Department of Biology. Applicants for graduate assistantships must

request their references and include in their three letters of recommendation a statement concerning the student's potential as a laboratory assistant.

All new applicants for graduate assistantships will be required to complete an interview before appointment. Graduate assistantships are usually renewable for two years if the student has made reasonable progress toward the degree (see below).

New applicants for graduate assistantships must submit completed applications no later than April 15; appointments are usually made by May 1 of each year. Continuing students must submit an assistantship application packet by April 1.

Advisement

Before course work begins, the admitted student should meet with the graduate program coordinator or assigned major advisor for orientation and assistance in planning the first semester program. The student should initiate the selection of a major advisor and a graduate committee during the first semester at Clarion. The student and the graduate committee shall develop an academic research program leading to the M.S. degree. The student will be responsible for scheduling a Graduate Committee meeting once per semester to evaluate progress toward the completion of the program. Minutes of the graduate meetings will be recorded by the major advisor and will become a part of the student's permanent file.

A minimum of nine credits per semester is considered a full load for graduate students. Twelve semester hours (three credits per session) is a maximum load during summer sessions. Exceptions may be authorized by the dean of Graduate Studies upon recommendation by the Department of Biology acting upon a written petition by the student.

It is the candidate's responsibility to file, with the aid of his or her major advisor, an Application for Graduation before the published deadline during the semester before he or she intends to graduate.

Courses

Courses may be taken from any curriculum in the *Graduate Catalog*. Students are encouraged to go outside the Department of Biology for courses if their program goals and career interests will benefit as determined by their graduate research committee.

While students can, and frequently do, take undergraduate courses at all levels of instruction, only 400-, 500-, 600-, and 700-level courses can be taken for graduate credit. No more than six semester hours of 400-level courses may count toward the master's degree. The 400-level courses that may count toward the master's degree are BIOL 410, 460, 464, 470, 471, CHEM 453, and 463. Please note that 400-level courses taken for undergraduate credit cannot be repeated for graduate credit.

Reasonable Progress Toward Degree

It is the expectation of the Biology Department that the first priority of all full-time graduate students is the completion of the requirements of the master of science degree in a timely manner. The student's major advisor and graduate research committee will determine reasonable progress toward completion of the degree. At a minimum, reasonable progress will include:

Thesis options:

- (1) a public presentation of the student's proposed research project in a seminar open to the university community;
- (2) submission and tentative approval of the research prospectus by the student's major advisor and graduate research committee by the end of the second semester in residence; and
- (3) holding graduate research committee meetings once per semester;

Thesis and non-thesis options:

- (1) maintaining a minimum QPA of 3.0 in all course work attempted.

Students who are applying for a second year of support as a departmental graduate assistant must submit evidence of relevant degree progress to the departmental graduate committee that includes documentation of the criteria listed above in addition to evidence that professional duties associated with the current year's assistantship have been completed in a satisfactory manner.

Physical Facilities

The Department of Biology is located in the Science and Technology Center, a three-story teaching and research building opened in 2009. The facility is well supplied with sophisticated equipment and instrumentation necessary for studying the many facets of biology. In addition, the department also maintains continually expanding herbarium and vertebrate biology collections, animal and aquarium rooms, and a cell culture laboratory. New

molecular biology/biotechnology and ecology laboratories provide research support for students in these growth areas. Field work is conducted on land owned by the university adjacent to the campus or on the huge expanse of state, federal, or privately owned land/waters in close proximity to the university. Ecologically interesting areas within a 100-mile radius of the campus include the Jennings Nature Preserve, Allegheny National Forest, Cook Forest State Park, Tionesta Scenic Area, Heart's Content Scenic Area, Presque Isle State Park, Power Mill Nature Reserve, and the Pymatuning region.

Pymatuning Laboratory of Ecology

Because of a unique cooperative program with the University of Pittsburgh, Clarion University is able to offer an outstanding program of studies in ecology. Courses are taken at Clarion Campus during the academic year. In the summer, courses in field biology are offered at the Pymatuning Laboratory of Ecology. Classes are taught and research is directed by faculty from several institutions. The laboratory is located approximately 1.5 hours northwest of Clarion on the shores of the Pymatuning Reservoir.

The teaching and research facilities of the field laboratory are on a site within a wildlife sanctuary and propagation area managed by the Pennsylvania Game Commission. A hatchery of the Pennsylvania Fish Commission is adjacent to these facilities. The housing and dining area for the laboratory is located three miles away, on the public portion of the Pymatuning Reservoir. A waterfront area is available for recreational use by students and staff.

Release of Data from M.S. Thesis-Publication Policy

Publications resulting from research done at Clarion University shall give credit to people involved in the research, to Clarion University, and to any granting agencies that supported the research.

A maximum of six credits from the 400-level courses listed below can be taken for graduate credit with permission from the graduate program coordinator or department chair. Any 400-level courses taken for undergraduate credit cannot be repeated for graduate credit.

Biology Courses

BIOL 410:

FIELD METHODS IN ENVIRONMENTAL BIOLOGY 3 s.h.

A field-based course designed to give students hands-on experience in the various methods needed in environmental studies. The course will focus on the environmental assessment of terrestrial and aquatic habitats and the impacts of perturbations on flora, fauna, and natural landscapes. Prerequisites: BIOL 155/156: Principles of Biology II and laboratory, BIOL 202: Principles of Ecology, or permission of instructor. Summers, on demand.

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 lecture and three laboratory hours weekly. Prerequisites: 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:** *MAMMALOLOGY* **3 s.h.**
 Interrelationships of mammals and the biotic and abiotic environment. Includes discussions and investigations of mammalian distribution, diversity, taxonomy, ecology, and physiology. Includes both field and laboratory studies. Two lecture and three laboratory hours weekly. Prerequisite: A course in 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. (Pymatuning)
- BIOL 500:** *GRADUATE SEMINAR* **1-2 s.h.**
 A survey of current literature, concepts, and theories from selected fields of biology. Two discussion hours weekly. By arrangement.
- BIOL 502:** *BIOMETRY* **3 s.h.**
 Collection, analysis, and presentation of biological data. Fundamental aspects of designing and executing descriptive and experimental studies with emphasis on biological research. Applications to undergraduate and graduate research in progress in the Department of Biology are stressed. Three lecture hours per week. Spring, alternate years.
- BIOL 503:** *SPECIAL TOPICS IN BIOLOGY* **1-4 s.h.**
 Semi-independent studies of topical material under the guidance of the instructor. Maximum credit allowable toward graduation: nine semester hours. Prerequisites: permission of instructor and the student's graduate committee.
- BIOL 504:** *COMPUTATIONAL MOLECULAR BIOLOGY AND BIOINFORMATICS* **3 s.h.**
 The new disciplines of genomics, proteomics, and bioinformatics attempt to analyze and make sense of the data generated by the Human Genome Project and other genome projects. This course is an introduction to the computational techniques and algorithms which are used. Topics will include data base searches, pair-wise and multiple alignments, similarity searching, protein structure, gene mapping and genomic maps and simulation. This interdisciplinary course will be of interest to students in biology, molecular biology, ecology, evolutionary biology, biochemistry, industrial mathematics, and computational science. Prerequisite: BIOL 201: Genetics and MATH 260: Applied Calculus or MATH 221: Elementary Applied Statistics, or permission of instructor. No programming experience is necessary, but a facility with computers is assumed. Pre-session, alternate years.
- BIOL 505:** *ECOLOGICAL APPLICATIONS* **3 s.h.**
 A case history approach to the analysis and possible resolution of both terrestrial and aquatic environmental problems. Students will analyze the problem from a number of perspectives, including the biological, in an assessment of the problem. Sample design, cost considerations, data collection, and analysis will be incorporated into the assessment. The overall assessment of the problem and possible resolution will be conveyed both orally and in a written format. This course is considered a capstone for students in the Applied Ecology Program, but is appropriate for other students who meet the prerequisites. Prerequisites: BIOL 202, or permission of the instructor. BIOL 493 and 494 are recommended. Spring, alternate years.
- BIOL 508:** *BIOLOGY INTERNSHIP* **1-3 s.h.**
 Internships provide practical experiences that are related to a student's academic program or research area. Credits earned can be utilized as partial fulfillment of the Master of Science Degree in Biology. Students considering internship credits to be applied toward the Master of Science degree must have the approval of their graduate advisory committee, the cooperating agency, and the appropriate university administrators. On demand.
- BIOL 511:** *WILDLIFE ECOLOGY AND MANAGEMENT* **3 s.h.**
 A study of the ecology and management of mammals, birds, amphibians, and reptiles. Lectures cover population dynamics, estimation, and population viability, sampling techniques, habitats, disease, and both game and non-game management. Labs emphasize wildlife population modeling, habitat assessment using GIS, and evaluation of alternative management strategies. Students will develop their own wildlife management plans. Two hours of lecture and three hours of laboratory weekly. Prerequisite: BIOL 202 or permission of instructor. Fall, alternate years.
- BIOL 520:** *TERRESTRIAL BOTANY* **3 s.h.**
 A field course emphasizing the identification, distribution, and ecology of upland vascular plants of western Pennsylvania. Field and laboratory projects will focus on plant characteristics, taxonomic relations, floristics, habitat relationship, inventory methods, and plant community description and dynamics. (Pymatuning)
- BIOL 521:** *AQUATIC ENTOMOLOGY* **3 s.h.**
 Emphasis in this course is on identification of the major groups of invertebrates playing a role in natural communities and on the methods of quantifying their relative importance in the community. (Pymatuning)
- BIOL 522:** *AQUATIC BOTANY* **3 s.h.**
 Study of freshwater algae and aquatic vascular plants in field communities, methods of quantifying relative numbers and mass, and structural and physiological adaptations to the aquatic environment. (Pymatuning)

- BIOL 523:** *EXPERIMENTAL VERTEBRATE ECOLOGY* **3 s.h.**
Designed to give knowledge of basic field identification, capture techniques, quantification, and natural history of some of the common vertebrates of Pennsylvania. (Pymatuning)
- BIOL 524:** *MICROBIAL PHYSIOLOGY* **4 s.h.**
A study of the physiological reaction involved in the growth, reproduction, and death of microbes. Consideration is placed upon the metabolism of carbohydrates, proteins, vitamins, and fats. Enzymes, oxidation-reduction potentials, energy relationships, membrane potentials, and nutrients are considered. Prerequisites: General microbiology and biochemistry or permission of instructor. Two lecture and four lab hours per week.
- BIOL 525:** *FISHERIES BIOLOGY* **3 s.h.**
Ecology of fish populations, including identification, age and growth, populations estimation and analysis, food habits, environmental requirements, and management considerations. Prerequisites: Environmental Biology or permission of instructor. Three lecture hours per week. Laboratory sessions held on Saturdays. Student must possess a valid Pennsylvania fishing license.
- BIOL 526:** *FIELD ICHTHYOLOGY* **3 s.h.**
A field course dealing with the interrelationships of fish with their biotic and abiotic environment. Fish in their natural habitats, pollution, and improvements of aquatic habitats, and applied aspects of fish ecology and fishery management will be studied. (Pymatuning). Student must possess a valid Pennsylvania fishing license.
- BIOL 527:** *FIELD BOTANY* **3 s.h.**
Field-based course emphasizing the identification and natural history of common vascular plants native to western Pennsylvania and methods used to study them. Course is taught at a time when the spring flora is conspicuous. Spring, alternate years.
- BIOL 528:** *ORNITHOLOGY* **3 s.h.**
This course deals with the biology of birds. Lectures cover topics such as classification, internal and external adaptations for flight, migration, nesting and feeding habits, behavior, ecology, and physiology. There are two lectures and three laboratory or field trip hours per week. Prerequisite: Permission of the instructor. Spring, even-numbered years.
- BIOL 532:** *FIELD ORNITHOLOGY* **3 s.h.**
This course deals primarily with the identification and natural history of birds of western Pennsylvania. It is taught at a time when migratory species are also commonly seen. Although lectures are an important component, indoor and outdoor laboratory activities play a predominant role in this course. Prerequisites: BIOL 155/165; BIOL 156/166; or permission of the instructor. Spring, even-numbered years.
- BIOL 543:** *VIROLOGY* **3 s.h.**
A study of plant, animal, and bacterial viruses, including the biochemistry of viruses and viral life cycles, techniques in the study of viruses in relation to diseases, tumors, and cancer. Prerequisites: Microbiology or biochemistry or permission of instructor. Three lecture hours per week.
- BIOL 544:** *IMMUNOLOGY* **4 s.h.**
A study of cellular immunology, immunochemistry, and immunogenetics, with emphasis on the physiology of immune responses. Prerequisite: Permission of instructor. Three lecture and three lab hours per week.
- BIOL 546:** *PATHOGENIC MICROBIOLOGY* **4 s.h.**
A study of the bacteria, fungi, and viruses which cause human disease. Laboratory emphasis is on isolation and identification of pathogens and on elementary immunology. Two lectures and four laboratory hours weekly. Prerequisites: BIOL 341. Spring, annually.
- BIOL 550:** *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. Prerequisites: C or better in BIOL 155, 156, 165, 166, and 203, and completion of CHEM 252 and 262 or permission of instructor. Fall Semester only.
- BIOL 551:** *ADVANCED ANIMAL PHYSIOLOGY* **1-3 s.h.**
A detailed treatment of fundamental concepts and techniques of animal physiology. Includes literature reviews and individual investigations. Two lecture and three lab hours per week.
- BIOL 552:** *ADVANCED PLANT PHYSIOLOGY* **3 s.h.**
Life processes and responses of plants to the environment. Topics include water relations, transpiration, translocation, photosynthesis, respiration, metabolism, plant hormones and morphogenesis, photoperiodism, temperature responses, and environmental and stress physiology. Two lecture and three lab hours weekly. Prerequisites: BIOL 201, 203, and CHEM 254. Spring, odd-numbered years.
- BIOL 555:** *ENDOCRINOLOGY* **3 s.h.**
A survey of the chemical and physiological principles of hormonal integrations in animals. Three lecture hours per week.
- BIOL 556:** *ENTOMOLOGY* **3 s.h.**
A general study of insects, including structure, physiology, classification, economic importance, and relationships. Two lecture and three laboratory or field work hours weekly. Fall, odd-numbered years.
- BIOL 559:** *PHYSIOLOGICAL ECOLOGY* **3 s.h.**
Nearly every habitat on earth, from thermal hot springs to polar ice caps, is home to some form of life. Physiological ecology explores the biotic and abiotic challenges to organisms imposed by their environments and adaptations which allow them to survive in various habitats, both in terms of how organisms physiologically adapt to short-term fluctuations in their environment and how adaptations influence biogeographic distribution and evolutionary success of various species. Topics

include adaptations related to temperature, water and salt balance, and gas exchange. Adaptations of organisms to extreme or unusual environments may be considered. Prerequisite: BIOL 202, 203, 451, or permission. Spring, alternate years.

- BIOL 563:** *BEHAVIORAL ECOLOGY* **3 s.h.**
An examination of the behavior of animals in relation to their natural environment with emphasis on the functioning of patterns of behavior in nature, intraspecific communication and social organization, behavioral relationships between species, and the regulation of behavior by the environment. (Pymatuning)
- BIOL 571:** *HABITAT ECOLOGY–AQUATIC* **6 s.h.**
A detailed examination is made of the structure and functioning of selected aquatic ecosystems. Emphasis is placed on the interrelationships of functioning systems. (3 credits at Pymatuning)
- BIOL 572:** *TERRESTRIAL COMMUNITY ECOLOGY* **6 s.h.**
A study of the composition, distribution, and dynamics of plants and animals in selected terrestrial communities. Major biomes to be included will be grassland, deciduous forest, coniferous forest, and tundra. Summers only: six weeks. (3 credits at Pymatuning)
- BIOL 573:** *FRESHWATER ECOLOGY* **3 s.h.**
A field-oriented study of the physics, chemistry, and biology of standing and flowing inland waters.
- BIOL 574:** *ECOLOGY OF AQUATIC INSECTS* **3 s.h.**
Examination of the ecological adaptations of aquatic insects with special emphasis on morphology, habitat, and trophic relationships. (Pymatuning)
- BIOL 575:** *EXPERIMENTAL ECOLOGY* **3 s.h.**
Study of designs suitable for investigation of natural populations and communities stressing statistical analysis, and the logical control of experiments in natural situations. (Pymatuning)
- BIOL 576:** *FUNGAL ECOLOGY* **3 s.h.**
Emphasis will be on the role of fungi in the decomposition of organic materials in terrestrial and aquatic communities, and the recycling of mineral nutrients. (Pymatuning)
- BIOL 577:** *FOREST ECOLOGY* **3 s.h.**
An in-depth approach to the structure, function, and dynamics of forest ecosystems at multiple scales. Lecture and discussion focuses on current topics in forest ecology and management such as major forest types and climate, influence of physical factors like soils and hydrology on forest ecosystem function, the importance of disturbance, herbivores, and pathogens in structuring forest ecosystems, and the concept and practice of sustainability in forest management. Laboratory emphasizes descriptive and investigative studies of local forest ecosystems. Two lecture and three laboratory hours weekly. Fall, alternate years.
- BIOL 578:** *BIOME STUDIES* **3 s.h.**
A travel-study program which offers opportunities for study in the various biomes, e.g., grasslands, montane, seashore, etc. Summers only. Prerequisites: Environmental Biology or permission of instructor.
- BIOL 579:** *ALPINE ECOLOGY* **3 s.h.**
Students travel to the Beartooth Mountains in northern Wyoming where they may undertake field studies of aquatic and terrestrial communities along an altitudinal transect. Permission to register granted on an individual basis. (Students will share cost of travel and food. Tents and cooking facilities will be provided.) (Pymatuning)
- BIOL 581:** *MICROBIAL GENETICS* **3 s.h.**
A study of bacterial and viral genetics with emphasis upon mutation, mutant selection, gene action, recombination genetic mapping, gene regulation, and recombinant DNA technology. Laboratory sessions are on an arranged basis. Prerequisite: permission of instructor. Two lecture and three lab hours per week.
- BIOL 583:** *MOLECULAR BIOLOGY* **4 s.h.**
The study of the structural and functional relationships of the major biological macro-molecules, with emphasis on nucleic acid biology. Current systems, methods, and applications of biotechnology, including recombinant DNA techniques, will be emphasized in the laboratory. Two lectures and three laboratory hours weekly. Spring, annually.
- BIOL 585:** *BIOTECHNOLOGY* **4 s.h.**
Advanced topics in the current systems, methods, and applications of recombinant DNA and protein biotechnology. Three lecture/discussion and three lab hours each week. Prerequisite: BIOL 483/583 or consent of instructor. Spring, annually.
- BIOL 591:** *BIOGEOGRAPHY* **3 s.h.**
The subject matter covers aspects of the distribution of plants and animals. Main topics of concern include interpretive approaches to biogeography, paleobiogeographic evidence of past distributions, the centers of origin of various groups, mechanisms and routes of dispersal and colonization, and the dynamics of extinction. Prerequisites: BIOL 202 and 203.
- BIOL 592:** *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. Lecture topics include techniques of observation and experiments in animal behavior. Three lecture hours weekly. Prerequisites: BIOL 201, 202. Alternate years.
- BIOL 593:** *COMMUNITY AND ECOSYSTEMS DYNAMICS* **4 s.h.**
An in-depth approach to the structure, function, and dynamics of ecological systems at community, ecosystem, and landscape scales. Lecture and discussion will 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 will emphasize field-based descriptive and investigative studies of local communities and ecosystems. Three lecture and three lab hours weekly. Prerequisites: BIOL 202 or equivalent is required. A basic statistics course is highly desirable. Fall, even-numbered years.

- BIOL 594:** *POPULATION BIOLOGY* **4 s.h.**
Investigates the empirical, experimental, and theoretical aspects of the structure, growth, and evolution of biological populations. Takes a holistic approach to how population genetics and population ecology interact to produce observed population structure and dynamics. Two hours lecture/discussion and three laboratory hours weekly. Prerequisites: BIOL 202, MATH 260 or 270. Spring, even-numbered years.
- BIOL 597:** *EVOLUTIONARY ECOLOGY* **3 s.h.**
This course explores contemporary topics as well as landmark contributions in ecology and evolutionary biology. These topics are explored by readings of research and review papers. Three hours lecture/discussion weekly. Prerequisites: completion of courses in each of the following: principles of ecology, evolution, and genetics; or permission of instructor.
- BIOL 600:** *SPECIAL PROBLEMS IN BIOLOGY* **1-3 s.h.**
By permission.
- BIOL 700:** *RESEARCH AND THESIS* **1-6 s.h.**
Prerequisite: Successful oral defense of prospectus seminar.

Environmental Science Courses

- ENVR 500:** *GRADUATE SEMINAR IN ENVIRONMENTAL SCIENCE* **1-2 s.h.**
A survey of current literature, concepts, theory, and applications from selected fields of environmental science. One to two discussion hours weekly. By arrangement. Fall and Spring, yearly.
- ENVR 501:** *ENVIRONMENTAL SCIENCE INTERNSHIP* **1-3 s.h.**
Internships provide practical experiences that are related to a student's academic program or research area. Credits earned can be utilized as partial fulfillment of the Master of Science Degree in Biology. Students considering internship credits to be applied toward the Master of Science degree must have the approval of their graduate advisory committee, the cooperating agency, and the appropriate university administrators. On demand.
- ENVR 600:** *SPECIAL PROBLEMS IN ENVIRONMENTAL SCIENCE* **1-3 s.h.**
Advanced topics in environmental science. The professor selects the format most suitable to the study. Course offered on request of students, subject to availability of staff. Prerequisite: Permission of instructor. On demand.
- ENVR 700:** *RESEARCH AND THESIS IN ENVIRONMENTAL SCIENCE* **1-6 s.h.**
Independent research project on an approved topic supervised by a faculty member. Required of all students working toward the thesis option Master of Science in Biology, Environmental Science concentration. Prerequisite: Permission of instructor. On demand.

Geography/Earth Science Courses

- GEOG/ES 500:** *INTRODUCTION TO REMOTE SENSING WITH LABORATORY* **3 s.h.**
Explores aerial photographs for geographic investigation of physical and cultural features of the landscape; the application of remote sensing to topographic and planimetric map construction, agricultural and land use identification, landform study, and forestry. Fall annually.
- GEOG/ES 525:** *ADVANCED REMOTE SENSING WITH LABORATORY* **4 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 500 or permission of instructor. Spring, annually.
- GEOG/ES 550:** *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. Prerequisite: Cartography I and consent of instructor. Offered occasionally.
- ES 555:** *FIELD METHODS IN ENVIRONMENTAL GEOSCIENCE* **4 s.h.**
Field-based course designed to give upper-level students hands-on experience in various aspects of hydrogeology, surficial geology and meteorology. Emphasis on principles and practice of the most recent field and laboratory techniques of instrumentation, sampling, and monitoring as applied to relevant environmental problems. Prerequisite: ES 260, 280, and 330. Summer session, on demand.
- GEOG/ES 570:** *INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS* **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. 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 or permission of instructor. Fall, annually.
- GEOG/ES 590:** *ADVANCED GEOGRAPHIC INFORMATION SYSTEMS WITH LABORATORY* **3 s.h.**
Provides students with the ability to apply GIS for spatial problem-solving in applied setting. 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 570. Spring, annually.



MASTER OF BUSINESS ADMINISTRATION DEGREE

College of Business Administration Graduate Faculty

Professors: R. Balough, K. Danvers, J. Eicher, S. Ewedemi, B. Garland, A. Grenco, P. Kim, M. Olivás-Luján, T. Oliver, J. Pesek, B. Ponsford, L. Quesenberry, R. Raehsler, K. Roth, W. Sanders, S. Sohng, W. Stine, S. Trejos, C. Yang
Associate Professors: G. Barboza, T. Johns, P. Woodburne

COBA Mission

The College of Business Administration at Clarion University of Pennsylvania prepares students for success in business, government, and other organizations while serving the academic and business communities through effective teaching, professional responsibilities, scholarly contributions, and service appropriate to the university and the region. (Revised April 2006)

Master of Business Administration

Brenda Ponsford, Ph.D., MBA Director

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Program Objectives

The major objective is to provide a basic core of knowledge about various theories, techniques, and practices relating to business administration and problem solving. In addition, candidates for the degree have an opportunity for in-depth study in a areas of interest. Specific objectives are to prepare candidates for:

- positions in middle management with private and public organizations;
- teaching positions in community colleges;
- enrollment in doctoral programs in business administration.

The program is designed for candidates with undergraduate degrees not only in business administration but also in other disciplines. Graduate courses are offered in the evening for the convenience of employed or part-time students.

The College of Business Administration at Clarion University is accredited by AACSB International—The Association to Advance Collegiate Schools of Business.

Admission Requirements

Division of Graduate Studies admission requirements apply with the following additions:

- Students must submit official scores on the Graduate Management Admissions Test (GMAT).
- Applicants currently employed should include references from both professors and employers, if possible. Applicants should submit three recommendations on the Clarion University recommendation forms.
- Resume

In general, admissions are on a “rolling” basis.

Program Options

The College of Business Administration offers a full-time traditional M.B.A., an accelerated M.B.A., and a part-time online M.B.A. program option. For more information regarding any of these program options, including admissions criteria and program features, please visit www.clarion.edu/M.B.A.

Requirements for Graduates

Requirements for the M.B.A. degree are in two components, course requirements and a portfolio completion requirement. Course requirements for the M.B.A. degree are composed of Foundation Courses, M.B.A. Core Courses, and Elective Courses. A total of 33 graduate credits in the M.B.A. Core and M.B.A. Electives is required for completion of the degree. The portfolio requirement will not be specific to any course; however, the requirements for completion will be introduced in a first-level M.B.A. core class and the portfolio submission is expected in the last semester of study. Specific requirements for each of these components are given below.

Course Requirements for the M.B.A. Degree

A. Foundation Courses

M.B.A. Foundation course requirements are designed to meet all of the “Undergraduate Knowledge and Skill Areas” required for the degree and a portion of the “Undergraduate and Master’s Level Knowledge and Skill Areas” requirements. M.B.A. Foundation courses, waived for most candidates with a business

undergraduate degree, are not subject to residency requirements and are considered to be prerequisite or corequisite to the M.B.A. Core. M.B.A. Foundation coursework may be completed at Clarion or other approved institutions at either the undergraduate or the graduate level. Graduate courses taken at another institution to meet foundation course requirements may be used in transfer to meet M.B.A. Foundation requirements but not M.B.A. Core or M.B.A. Elective course requirements. At Clarion, courses that meet the foundation requirements are offered at the undergraduate level. Some of these foundation courses may have prerequisite courses. The following are the foundation areas and courses at Clarion (with the graduate course equivalents) that meet foundation requirements for the M.B.A. degree:

Knowledge and Skill Area	Clarion Course (or equivalent)
Micro/Macro Economics	ECON 211 & 212 or 215 (ECON 500)
Financial Accounting	ACTG 251 (ACTG 500)
Economic and Business Statistics	ECON 221 & 222 or 230 (BSAD 501)
Management Theory and Practice	MGMT 320 (MGMT 500)
Principles of Marketing	MKTG 360 (MKTG 500)
Financial Management	FIN 370 (FIN 500)

B. M.B.A. Core Courses

M.B.A. Core Courses are designed to complete the “Undergraduate and Master’s Level Knowledge and Skill Areas” requirements for each student. The M.B.A. Core courses are:

Knowledge and Skill Area	Course ID	SCH
1. Leadership, Organization and Assessment ¹	MGMT 521	3.0
2. Quantitative Methods and Statistics	BSAD 503	3.0
3. Managerial Accounting	ACTG 552	3.0
4. Legal/Ethical Environment of Business	BSAD 540	3.0
5. Managerial Economic Analysis	ECON 510	3.0
6. Financial Management	FIN 570	3.0
7. Marketing Concepts and Strategy	MKTG 560	3.0
8. Operations and Information Management	MGMT 626	3.0
9. Global Environment of Business	BSAD 661	3.0
10. Strategic Management/Integration ²	BSAD 690	3.0

¹ The introduction to the required student portfolio at the beginning of the program is included in this course.

² To be taken during the final semester of study.

C. M.B.A. Elective Courses

In addition to the core courses, all students will complete the balance of 33 credits of graduate course work from the following courses, subject to the offering of those courses. Graduate-level courses, other than those listed, may be used as elective credit toward the M.B.A. degree only with prior approval

of the M.B.A. program director and the dean of the college.

ACTG 451, 452, 453, 454, 455, 461, 463, 490, 499, 554, 650, 652, 653

CIS 402, 403, 462

BSAD 637, 699

ECON 461, 470, 490, 570, 600, 611, 612, 699

FIN 463, 471, 476, 480, 671, 676

MGMT 420, 423, 427, 428, 483, 485, 486, 621, 622, 625, 650

MKTG 461, 462, 465, 468, 469, 491, 562, 604, 661

A maximum of three hours of approved 400-level courses, taken for graduate credit, may be used as elective credits. Please note that a 400-level course previously taken for undergraduate credit may not be repeated for graduate credit. A maximum of nine graduate credit hours toward the 33 required for the M.B.A. degree may be transferred from accredited graduate programs with the approval of the M.B.A. program director and the department chairperson of the course for which transfer credit is sought.

Additional Requirements for the M.B.A. Degree

A. Assessment Portfolio Requirement

In addition to the required coursework, each student must successfully complete the assessment portfolio requirement. Students must submit to the M.B.A. director, at the beginning of the final semester of study, a portfolio of work completed for the various courses taken as M.B.A. Core and M.B.A. Elective courses. Expectations regarding the contents of the portfolio to be submitted will be given to students in MGMT 521 early in the program. Once submitted, the portfolio will be evaluated, any specific deficiencies identified, and the student will be given the opportunity to correct these deficiencies. No student will be cleared for graduation without completing the portfolio requirement. The M.B.A. program director will coordinate the evaluation of the portfolios.

B. Performance Requirements

Students who earn more than six hours of graduate credit at Clarion with a grade of "C" or earn any credits with grades below "C" and/or fall below a 3.00/4.00 graduate overall quality-point average (QPA) are automatically placed on probation. Students whose QPA in the foundation courses falls below a 3.00/4.00 are also placed on probation. Students placed on probation must achieve satisfactory academic standing within one semester of registration or be removed from the program. Any credits earned with grades below "C" cannot be used to meet M.B.A. degree requirements.

All prerequisite courses for a given course must be met before taking that course. BSAD 690 must be taken during the last semester of graduate course work. The maximum time for completion of the degree program

is six calendar years from the date of the first graduate enrollment.

Professional Accountancy Course of Study

Students pursuing the M.B.A. degree may enroll in the Professional Accountancy Course of Study. Clarion University undergraduate students may also apply for this course of study, and, upon completion, will have received both the Bachelor of Science in Business Administration and the Master of Business Administration degrees. Only those students whose career aspirations require the highest discipline in accounting expertise are advised to apply for this course of study. The sequence of 156 total semester hours of course work, including 36 sch of graduate course work, is designed to prepare students for entry into the practice of professional accountancy as prescribed by the American Institute of Certified Public Accountants. Entrance into the **Professional Accountancy Course of Study** will normally occur upon admission to the M.B.A. Program or, for undergraduates, during the student's junior year upon formal approval of the Department of Accountancy chair. Entrance into this program for undergraduate students does not ensure admission into the M.B.A. program upon completion of the bachelor's degree. Interested students should contact the Department of Accountancy chair for details and options.

Liberal Arts Pre-Professional M.B.A. Option

The College of Business Administration, in conjunction with the College of Arts and Sciences, offers a Liberal Arts Pre-Professional M.B.A. Option. Undergraduate foundation course requirements in business administration may be taken concurrently with a liberal arts major, giving students many of the courses prerequisite to the M.B.A. Program before graduation. Undergraduates interested in this program should contact their liberal arts advisor for details and requirements.

Students wishing to pursue the Professional Accountancy or the Liberal Arts Pre-Professional options must follow the normal M.B.A. admission procedures. Admission to one of these options does not guarantee admission to, or completion of, the M.B.A. degree.

Placement

Graduate students are encouraged to use the services of the University Career Services Center. Graduates often obtain positions with banks, manufacturing concerns, accounting firms, other business and industrial organizations, hospitals, and government agencies.

Graduate Assistantships

Graduate assistantships are available to qualified M.B.A. students. Awarded competitively, they cover some or all basic tuition expenses and provide a stipend. They also may furnish additional opportunity for close work with graduate faculty on a variety of research projects. Applications for assistantships are available in the M.B.A. Office.

Advisement

All graduate students are assigned an advisor upon admission. Before registering for classes, students should meet with their advisor. Students must obtain the signature of their advisor on any special requests for course substitution, individualized instruction, internship, or special problems courses.

Facilities

The College of Business Administration is located in Still Hall, the newest classroom building on campus. In addition to classrooms and a 225-seat auditorium, the facility includes an up-to-date microcomputer lab and trading room.

A maximum of three credits from the 400-level courses listed in the sections below can be taken for graduate credit with permission from the graduate program coordinator. Any 400-level courses taken for undergraduate credit cannot be repeated for graduate credit.

Accounting Courses

- ACTG 451:** *ACCOUNTING PROBLEMS* **3 s.h.**
A problem-oriented study of topics most often tested on the CPA exam. Included are inventory methods, long-term contracts, partnerships, leases, consignments, installment sales, receiverships, fiduciary accounting, and government accounting. Emphasizes preparations for the practice portion of the CPA exam. Prerequisite: ACTG 355.
- 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. Prerequisites: ACTG 352.
- 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. Prerequisites: ACTG 353.
- 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.
- ACTG 455:** *NOT-FOR-PROFIT ENTITIES* **3 s.h.**
Studies the principles and practices of budgeting and accounting for activities of entities that are operated for purposes other than making profits. Prerequisite: ACTG 351.
- 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. Prerequisites: ACTG 252.
- ACTG/FIN 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.
- ACTG 490:** *CURRENT ACCOUNTING PRONOUNCEMENTS AND PRACTICE* **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.
- 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.
- ACTG 500:** *FINANCIAL ACCOUNTING* **2 s.h.**
Examines the principles and procedures for collecting, recording, summarizing, and reporting financial information.
- ACTG 552:** *MANAGEMENT ACCOUNTING* **3 s.h.**
A graduate course for non-accounting majors which deals with the application of concepts and tools of accounting analysis necessary for planning, control, and decision-making functions of national and multinational organizations. Topics include financial statement analysis and interpretation, budgeting, standards, and forecasting. Prerequisites: ACTG 251 and ACTG 252.
- ACTG 554:** *ADVANCED AUDITING* **3 s.h.**
An advanced study of current topics in auditing. The course is intended to develop more complex issues than those encountered in an introductory auditing course. Topics include current audit influences, special problems with audit reports, SEC practice, computer auditing, and related topics. Prerequisite: ACTG 354 (or its equivalent).

- ACTG 650:** *THEORY OF ACCOUNTS* **3 s.h.**
 A study of past and contemporary accounting theories. The course is concerned with the historical development of accounting and its evolution to present times. Present-day accounting concepts are critically examined from the standpoint of how well they serve the needs of those who use the products of accounting. Prerequisite: ACTG 351 (or its equivalent) or permission of the instructor.
- ACTG 652:** *ADVANCED COST AND MANAGERIAL ACCOUNTING* **3 s.h.**
 A study of complex problems in cost accounting. Use of cost accounting as a tool for managerial control is emphasized. Prerequisite: ACTG 352 (or its equivalent) or permission of the instructor.
- ACTG 653:** *FEDERAL TAX RESEARCH AND PRACTICE* **3 s.h.**
 A study of federal tax law emphasizing the underlying philosophy of the law. Research procedures and techniques in the handling of complicated problems in tax practice and tax planning will be set forth. Prerequisite: ACTG 453 (or its equivalent) or permission of the instructor.

Business Administration Courses

- BSAD 501:** *ECONOMICS AND BUSINESS STATISTICS* **2 s.h.**
 An accelerated combination of Economics 221 and Economics 222. Topics covered are descriptive statistics, probability, probability distributions, mathematical expectation, sampling distributions, confidence intervals, hypothesis testing, the analysis of variance and covariance, regression and correlation analysis, nonparametric statistics, and time series analysis. Applications of these techniques in the area of business and economics are emphasized. Statistical computer routines will be used. The course cannot be used to meet general education requirements.
- BSAD 503:** *QUANTITATIVE ANALYSIS FOR BUSINESS DECISIONS* **3 s.h.**
 Quantitative techniques and models which can be used for solving many of the problems that arise in business. Techniques include simple and multiple regression analysis, experimental design and analysis of variance, nonparametric tests, time series analysis, and decision theory. Opportunity is provided for students to become familiar with the use of computer statistical software packages. Applications include domestic and international situations. Prerequisites: MBA foundation courses in economic and business statistics and business mathematics. Basic computer competency is required.
- BSAD 540:** *LEGAL ENVIRONMENT AND ETHICAL CONDUCT OF BUSINESS* **3 s.h.**
 Provides the MBA student with an understanding of the concepts and issues related to the management of legal, ethical, and social responsibilities of business organizations. Students learn the basic tools needed to manage a business in the legal environment in which it operates, to recognize and respond to ethical problems and social responsibilities of business, and to understand their personal responsibilities as business managers.
- BSAD 637:** *MULTINATIONAL BUSINESS SEMINAR* **3-6 s.h.**
 This course incorporates an established program involving a consortium of American universities called the "International Business Seminar." The program involves a variety of trips to different nations for meetings with top-level executives of various organizations. The program is supplemented with a series of meetings with the instructors both before and after returning from the trips. Individual assignments are made, and a text which includes topical materials is provided. The assignments are of a graduate-level caliber, and are expected to produce presentable and/or publishable papers. Participation in seminars is expected to be at the graduate level. Should the student take this course for six credits, additional research will be required such that the student would be able to demonstrate graduate-level competency in one select area of international business. The area chosen will be mutually acceptable to both the instructor and the student, and the instructor will guide the student's research efforts. Prerequisite: MGMT 320 and MGMT 521.
- BSAD 661:** *GLOBAL ENVIRONMENT OF BUSINESS* **3 s.h.**
 Provides the MBA student with an understanding of the concepts, tools, and issues related to the strategic management of a modern business organization in the global environment. Students are exposed to characteristics of the international business environment in relation to core theories of international business. The skills needed by managers to make informed ethical business decisions in a diverse and complex global environment are stressed. Prerequisites: MBA foundation course in macroeconomics.
- BSAD 690:** *STRATEGIC MANAGEMENT AND BUSINESS POLICY* **3 s.h.**
 Examines the set of managerial decisions and actions that determine the long-run performance of an organization. Emphasizes the integrative concerns of business policy, environmental and strategic analyses, and creating competitive advantage. Taken last MBA semester and after all foundation courses.
- BSAD 699:** *SPECIAL PROBLEMS* **(1-6 s.h. per enrollment; 6 s.h. maximum) 1-6 s.h.**
 A thorough study of a business topic selected by the student from his or her area of major interest. It may take the form of research, readings, practical on-site applications, or a combination of these. Findings must be presented in a written paper which the student may be required to defend orally before a committee of graduate faculty and/or graduate students. Prerequisites: One or more graduate courses in the area from which the special project is selected, and consent of the student's advisor.

Economics Courses

- ECON 461:** *INTERNATIONAL FINANCIAL ECONOMICS AND CAPITAL MARKETS* **3 s.h.**
An applied analysis of the behavior and rationale for multinational corporations, with a special emphasis on the economics of technology transfer. Topics include: theory of the firm, foreign direct investment, intellectual property rights, market imperfections, international trade, international finance, economic development, and technology. Prerequisite: ECON 361 or permission of the instructor.
- 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. Prerequisite: ECON 211 and ECON 222. Note: Cannot be taken for credit after the completion of ECON 570.
- 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. Prerequisite: ECON 211 and 212 or permission of instructor.
- ECON 500:** *PRINCIPLES OF ECONOMICS* **2 s.h.**
An accelerated combination of ECON 211 and ECON 212. Topics covered are national income analysis, money and banking, monetary and fiscal policies, inflation, unemployment, international finance, consumer behavior and demand, organization of production, market structures, the pricing of inputs and outputs, and international trade.
- ECON 510:** *ADVANCED MANAGERIAL ECONOMICS* **3 s.h.**
This course will focus on the development and practical application of theoretical and quantitative techniques to business decision-making, including international applications. Optimization techniques draw on the student's knowledge of economics, mathematics, and statistics through modeling and the use of computer statistical packages. Prerequisite: Microeconomics foundation course, ECON 222, MATH 232.
- ECON 570:** *ECONOMIC AND BUSINESS FORECASTING* **3 s.h.**
An advanced study of forecasting techniques and business conditions analysis. Topics include: economic indicator analysis, classical time series components, econometric forecasting techniques, exponential smoothing models, and ARIMA models. Emphasis is placed on model development and evaluation using pre-written computer forecasting routines. Prerequisites: ECON 222 and macroeconomics foundation course.
- ECON 600:** *INDEPENDENT STUDY* **3 s.h.**
An opportunity for the graduate student to investigate in depth a facet of economics not covered by course offerings. The topic of study and course requirements must be approved by the Department of Economics chair, and the work must be supervised by a faculty member. Prerequisites: ECON 603, ECON 510 or ECON 611, and other requirements as deemed appropriate by the faculty supervisor.
- ECON 611:** *ADVANCED MICROECONOMIC ANALYSIS FOR BUSINESS DECISIONS* **3 s.h.**
An advanced study of the logical and mathematical development of microeconomic theories and the application of economic models to business problems. Major areas of study include demand theory, market models, welfare economics, and general equilibrium analysis. Prerequisite: Microeconomics foundation course.
- ECON 612:** *ADVANCED MACROECONOMIC ANALYSIS* **3 s.h.**
An advanced study and analytical development of macroeconomic theory. Major areas include national income accounts, aggregate income determination models, monetary aggregates, and macro dynamics. Prerequisite: Macroeconomics foundation course.
- ECON 699:** *SPECIAL TOPICS* **3 s.h.**
An opportunity for students to investigate specific topics or current issues on the graduate level. Prerequisites depend on the subject to be covered.

Finance Courses

- FIN/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.
- 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 will deal with investments and financial institutions, and markets. Prerequisite: FIN 371.
- 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.
- 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.
- FIN 500:** *FINANCIAL MANAGEMENT* **2 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.

- FIN 570:** *MANAGERIAL FINANCE* **3 s.h.**
A study of financial management approaches to evaluating complex alternatives for using available resources in both a domestic and a multinational context. Prerequisites: ACTG 251 or ACTG 500, and FIN 370 or FIN 500.
- FIN 671:** *FINANCIAL THEORY AND PRACTICE* **3 s.h.**
A case-study approach to the theory and practice of corporate financial issues which must be addressed by a financial manager. Emphasis will be placed on capital budgeting decisions under varying circumstances and theoretical corporate financial concerns. Prerequisite: FIN 570.
- FIN 676:** *INVESTMENT AND MANAGEMENT* **3 s.h.**
A study of the structure and management of investment portfolios. Various types of investments are examined in terms of their risk elements and the purposes they serve.

Management Courses

- MGMT 420:** *OPERATIONS RESEARCH* **3 s.h.**
Examines scientific methods that provide managers with a quantitative basis for making decisions. Emphasizes deterministic and stochastic methods, including the transportation method, linear and dynamic programming, PERT, inventory control, queuing theory, and Markov analysis. Prerequisite: ECON 222.
- MGMT 423:** *BUSINESS, SOCIETY, AND CORPORATE CONDUCT* **3 s.h.**
A study of concepts of, and theories about, interrelationships between business units and society in general. Employs the concepts and theories in the analysis of complex environmental problems encountered by business managers. Prerequisite: MGMT 320.
- MGMT 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.
- MGMT 428:** *ENTREPRENEURSHIP* **3 s.h.**
Explores entrepreneurship and the entrepreneurial process associated with new venture formation. Emphasizes creativity and innovation as they relate to the initiation of a new business. Highlights the preparation involved in the formation of a new venture, developing the entrepreneurial plan, and adapting to contemporary challenges facing the entrepreneur. Prerequisite: MGMT 320.
- MGMT 470:** *PROJECT MANAGEMENT* **3 s.h.**
Introduces students to basic project management concepts and reinforces those concepts through the use of project management software. Provides students with the knowledge and skills necessary to plan, organize, and control information technology projects. Key topics include monitoring and controlling schedules, progress reporting, risk management, quality management, cost management as well as contracting and procurement. Prerequisite: MGMT 320.
- MGMT 483:** *COMPENSATION MANAGEMENT* **3 s.h.**
A study of the processes in analyzing, developing, implementing, administering, and performing on-going evaluation of a total compensation and benefit system for all organizational groups. Prerequisite: MGMT 324.
- MGMT 485:** *LABOR RELATIONS AND PUBLIC POLICY* **3 s.h.**
Examines the industrial relations functions as they relate to federal, state, and local statutes and labor policies. Includes EEO, OSHA, FMLA, ADEA, ADA, NLRA, LMRA, LMRDA, workers’ compensation, and unemployment compensation. Prerequisite: MGMT 324.
- MGMT 486:** *OCCUPATIONAL SAFETY MANAGEMENT* **3 s.h.**
Provides students with information concerning management techniques, government regulation, and safety and health program development within organizational settings. Prerequisite: MGMT 320.
- MGMT 500:** *MANAGEMENT THEORY AND PRACTICE* **2 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.
- MGMT 521:** *LEADERSHIP AND ORGANIZATION* **3 s.h.**
Studies the ways in which leaders, groups, and individuals interact in organizations and how leadership plays important roles in organizations in today’s business environments. Covers various leadership and organization issues including theoretical foundations of leadership and organizations, roles of top management, corporate governance, organizational culture and change, stakeholder analysis, leading and managing groups, motivation and influence, satisfaction, and leadership development. Introduces students’ business competency portfolios. Prerequisites: MGMT 320.
- MGMT 621:** *HUMAN RESOURCES MANAGEMENT* **3 s.h.**
A study of human resources management issues and practices in business organizations. Topics covered include the analysis and design of jobs, staffing the organization, training, and development of employees, and the design and administration of compensation systems. Prerequisite: MGMT 320.
- MGMT 622:** *BUSINESS OPERATIONS IN A MULTI-NATIONAL ENVIRONMENT* **3 s.h.**
A study of the nature, organization, and operation of multinational firms. Selected cases of foreign operations of multinational corporations are discussed and analyzed. Prerequisite: MGMT 320.

- MGMT 625:** *LABOR ARBITRATION/NEGOTIATION* **3 s.h.**
A synthesis of industrial relations theory and practice. The union/employer relationship will be explored from the union organization drive through the continued negotiation of collective bargaining agreements, and attendant grievance arbitration procedures. Prerequisite: MGMT 320.
- MGMT 626:** *OPERATIONS MANAGEMENT AND INFORMATION SYSTEMS* **3 s.h.**
Addresses the understanding of how business information systems and business operations, with special emphasis on supply chain management, are integrated and managed in the modern enterprise. Utilizes both live-case and classroom instruction to facilitate student understanding of the material. Prerequisite: BSAD 503.
- MGMT 650:** *QUALITY MANAGEMENT* **3 s.h.**
Examines Quality Management (QM), including the philosophies and principles of Deming, Juran, and Crosby. Focuses on the management and continuous improvement of quality and productivity in manufacturing and service organizations. Includes quality measurement, quality assurance, giving employees responsibility for quality, the team approach to quality, employee recognition, and various QM tools and process management techniques including Six Sigma. Prerequisite: MGMT 320.

Marketing Courses

- 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.
- MKTG 462:** *PERSONAL SELLING AND SALES MANAGEMENT* **3 s.h.**
Covers the process of personal selling and 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 are discussed. Prerequisite: MKTG 360.
- 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.
- MKTG 468:** *BUYER BEHAVIOR* **3 s.h.**
Examines theories, models, recent research, and research techniques in buyer motivation, decision making, and buyer-seller interaction, including consumer buyers, business and organizational buyers. Includes traditional consumer marketing, business-to-business marketing, and e-marketing issues. Prerequisites: MKTG 360 and PSY 211 or permission of the instructor.
- 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.
- MKTG 491:** *E-MARKETING* **3 s.h.**
Examines concepts, vocabulary, and contemporary practices in e-marketing management, including e-marketing planning, e-marketing mix decision making, ethical and legal issues affecting the environment of e-marketing. Prerequisites: MKTG 360. In rotation with other marketing electives.
- MKTG 500:** *PRINCIPLES OF MARKETING* **2 s.h.**
The process in our society by which needs and wants of consumers are anticipated and satisfied. An examination of a systems approach to and analysis of the organizational function and the set of processes for creating, communicating, and delivering value to customers and for managing customer relationships in ways that benefit the organization and its stakeholders. Students develop an understanding of the increasing complexity of the modern marketing system, why it is essential and how it performs in both domestic and international marketing situations.
- MKTG 560:** *MARKETING DECISION MAKING* **3 s.h.**
The analysis of marketing concepts and problems from a managerial point of view. Emphasis is placed upon planning, organizing, and controlling of marketing and e-marketing activities and their integration with the objectives and policies of the firm. Both domestic and multinational marketing concepts are addressed in this course. Prerequisite: MKTG 360 and ECON 222.
- MKTG 562:** *CHANNELS OF DISTRIBUTION* **3 s.h.**
A study of components of a vertical marketing system and of the methods for making them effective. Also included are means of evaluating alternative marketing systems and the development of international marketing channels as well as e-marketing systems. Prerequisite: MKTG 360.
- MKTG 604:** *MARKETING RESEARCH* **3 s.h.**
Methods of solving marketing research problems, including library, survey, and experimental research methods; project design; data collection, analysis, and interpretation; presentation of marketing research reports for managerial user. Problems in international marketing research, e-marketing research, and research ethics are also included. Selection, design, and completion of a marketing-oriented research project and computer work are required. Prerequisite: ECON 603.
- MKTG 661:** *MARKETING STRATEGY* **3 s.h.**
A study of strategies for attaining a suitable "marketing mix" for various types of entities including e-marketers. Marketing knowledge from previous courses and experiences will be applied to the formation of overall programs for dealing with both international and domestic marketing problems. Prerequisite: MKTG 360.



MASTER OF EDUCATION Degrees

College of Education and Human Services

Department of Education

Graduate Faculty

Professors: B. Brancato, J. Brown, V. Harry, J. McCullough, B. Smith, S. Stalker

Associate Professors: J. Colantonio, S. Courson, D. Ellermeyer, S. Heeter, M. Howe, P. Kolencik, B. Maguire, J. McCullough, K. Murphy, J. Smrekar

Assistant Professors: G. Goodman, C. Matthews, K. Murphy

M.Ed. in Education

**Patricia Kolencik, Ed.D.,
Graduate Program Coordinator**
205 Stevens Hall
Telephone: 814-393-2678
E-mail: pkolencik@clarion.edu
www.clarion.edu/1093

Program Objectives

The master's degree program in education is accredited by the National Council for Accreditation of Teacher Education. This program encourages students to view themselves as researchers of teaching and learning and as professionals whose continued growth can best be met through inquiry, reflection, and sustained dialogues with peers. It affords practitioners the opportunity to share effective classroom practices while reading, interpreting, and analyzing current research and professional literature. *Students must choose and complete course requirements within a specified concentration area.*

Admission Requirements

Clarion University's general admission requirements apply, with the following additions:

- A baccalaureate degree from an acceptably accredited college or university.

- Undergraduate minimum QPA is 3.0 or above (on a 4.0 scale).
- Three faculty and/or professional recommendations; recommendation forms should document applicant's potential and/or effectiveness in the areas of teaching ability and/or professional performance.
- Teacher certification. Submit two copies of evidence of certification. If the applicant does not meet this requirement, the graduate faculty of the department shall determine existing deficiencies and how they may be met.
- Admission to provisional status may be granted at the discretion of the graduate faculty if the applicant's QPA is less than 3.0/4.0 scale. Regular status may be granted upon completion of nine semester hours of graduate study with a minimum of 3.0/4.0 average.

Degree Requirements

TOTAL 30-33 s.h.

Core Competencies 12 s.h.

Research—ED 520: INTRODUCTION TO RESEARCH.....3 s.h.

Pedagogy—ED 522: ANALYSIS OF TEACHING
OR ED 563: READING PEDAGOGY3 s.h.

Curriculum—ED 523: CURRICULUM DEVELOPMENT
AND EVALUATION3 s.h.

Professional Seminar—ED 578: PROFESSIONAL
SEMINAR3 s.h.

Concentration Areas

Course selection is to be made from the following:

CURRICULUM AND INSTRUCTION CONCENTRATION 12 s.h.

ED 403: FIELD EXPERIENCE AND METHODS IN ENVIRONMENTAL EDUCATION3 s.h.

ED 501: SEMINAR IN CRITICAL EDUCATIONAL ISSUES3 s.h.

ED 506: GENDER ISSUES IN EDUCATION3 s.h.

ED 509: OBSERVATIONS AND ANALYSIS OF THE URBAN CLASSROOM3 s.h.

ED 517: EDUCATIONAL COMPUTER APPLICATIONS ...3 s.h.

ED 521: INSTRUCTIONAL LEADERSHIP SKILLS3 s.h.

ED 526: SOCIOLOGY OF EDUCATION3 s.h.

ED 533: RECENT DEVELOPMENTS IN ELEMENTARY SOCIAL STUDIES3 s.h.

ED 534: WORKSHOP IN EDUCATION—with permission of academic advisor3 s.h.

ED 537: STRATEGIES AND PROBLEMS OF TEACHING ELEMENTARY SCHOOL MATHEMATICS3 s.h.

ED 568: LANGUAGE AND LITERACY3 s.h.

ED 599: SPECIAL TOPICS IN EDUCATION—with permission of academic advisor

ECH 501: EARLY CHILDHOOD CURRICULUM AND INSTRUCTION3 s.h.

ECH 502: EARLY CHILDHOOD CURRICULUM AND ASSESSMENT3 s.h.

ECH 510: LEADERSHIP IN EARLY CHILDHOOD EDUCATION AND CARE3 s.h.

SCED 502: INVESTIGATIVE TECHNIQUES AND PROCESS APPROACH TO MODERN SCIENCE CURRICULA3 s.h.

SPED 500: CONTEMPORARY ISSUES IN SPECIAL EDUCATION3 s.h.

SPED 536: ADVANCED METHODS FOR INDIVIDUALS WITH MILD/MODERATE HANDICAPS3 s.h.

SPED 596: CONTEMPORARY EDUCATION PRACTICES AND DIRECTIONS3 s.h.

SPED 597: COLLABORATION AND COOPERATION: IMPROVED TEACHING AND LEARNING OUTCOMES3 s.h.

Additional courses as approved by advisor

EARLY CHILDHOOD CONCENTRATION 12 s.h.

ECH 501: EARLY CHILDHOOD CURRICULUM AND INSTRUCTION3 s.h.

ECH 502: EARLY CHILDHOOD CURRICULUM AND ASSESSMENT3 s.h.

ECH 505: THE HEALTHY INFANT, TODDLER, AND YOUNG CHILD3 s.h.

ECH 510: LEADERSHIP IN EARLY CHILDHOOD EDUCATION AND CARE3 s.h.

ECH 512: LEADERSHIP IN EARLY CHILDHOOD EDUCATION AND CARE3 s.h.

ED 534: WORKSHOP IN EDUCATION—with permission of academic advisor3 s.h.

ED 555: READING AND LANGUAGE ARTS IN EARLY CHILDHOOD3 s.h.

ED 599: SPECIAL TOPICS IN EDUCATION—with permission of academic advisor

Additional courses as approved by advisor

HISTORY CONCENTRATION 12 s.h.

HIST 511: SEMINAR IN ANCIENT AND MEDIEVAL EUROPE 3 or 6 s.h.

HIST 512: SEMINAR IN EARLY MODERN EUROPE 3 or 6 s.h.

HIST 513: SEMINAR IN MODERN EUROPE 3 or 6 s.h.

HIST 520: SEMINAR IN U.S. HISTORY TO 1877 3 or 6 s.h.

HIST 521: SEMINAR IN U.S. HISTORY SINCE 1877 3 or 6 s.h.

HIST 530: SEMINAR IN NON-WESTERN HISTORY..... 3 or 6 s.h.

HIST 562: THE HOLOCAUST3 s.h.

HIST 700: THESIS 3 or 6 s.h.

Additional courses as approved by advisor

LITERACY CONCENTRATION 12 s.h.

ED 534: WORKSHOP IN EDUCATION—with permission of academic advisor3 s.h.

ED 563: READING PEDAGOGY3 s.h.

ED 564: EVIDENCE-BASED LITERACY INSTRUCTION...3 s.h.

ED 565: READING AND LANGUAGE ARTS IN EARLY CHILDHOOD3 s.h.

ED 568: LANGUAGE AND LITERACY.....3 s.h.

ED 575: SEMINAR IN CHILDREN'S LITERATURE.....3 s.h.

ED 599: SPECIAL TOPICS IN EDUCATION—with permission of academic advisor

LS 540: MULTICULTURAL SOURCES AND SERVICES FOR EDUCATORS & LIBRARIANS3 s.h.

LS 551: STORYTELLING3 s.h.

LS 555: HISTORY OF CHILDREN'S LITERATURE.....3 s.h.

LS 577: LIBRARIES, LITERATURE, AND THE CHILD...3 s.h.

LS 583: LIBRARIES, LITERATURE, AND YOUNG ADULTS.....3 s.h.

SPED 580: SPECIAL READING INSTRUCTION3 s.h.

Additional courses as approved by advisor

MATHEMATICS CONCENTRATION 21 s.h.

Specialization Courses15 s.h.

* MAED 501: TEACHING SECONDARY MATHEMATICS3 s.h.

* MAED 551: ALGEBRA/NUMBER THEORY FOR TEACHERS3 s.h.

* MAED 556: RESEARCH IN MATHEMATICS TEACHING & LEARNING	3 s.h.
+ MAED 537: GEOMETRY/TRIGONOMETRY FOR SECONDARY TEACHERS	3 s.h.
+ MAED 540: DISCRETE MATHEMATICS FOR GRADES 7-12	3 s.h.
+ MAED 550: PRE-ALGEBRA FOR TEACHERS	3 s.h.
+ MAED 571: ANALYSIS FOR TEACHERS	3 s.h.
*REQUIRED MATH CORE	
+CHOOSE TWO OF THESE	
Elective Courses	6 s.h.
# MAED 511: TECHNOLOGY FOR TEACHING SECONDARY MATHEMATICS	3 s.h.
# MAED 532: TEACHING STATISTICAL REASONING	3 s.h.
# MAED 581: PROBLEM SOLVING	3 s.h.
# MAED 585: APPLICATIONS AND MATHEMATICAL MODELING FOR TEACHERS	3 s.h.
# MAED 590: HISTORICAL DEVELOPMENT OF MATHEMATICS	3 s.h.
# electives = 6 s.h. Choose two as approved by advisor	
READING SPECIALIST CERTIFICATION CONCENTRATION	18 s.h.
ED 564: EVIDENCE-BASED LITERACY INSTRUCTION	3 s.h.
ED 567: SECONDARY, COLLEGE, AND CONTENT AREA READING INSTRUCTION	3 s.h.
ED 569: ASSESSMENT OF LITERACY	3 s.h.
ED 570: PRACTICUM I: ANALYSIS	3 s.h.
ED 571: PRACTICUM II: INSTRUCTION	3 s.h.
ED 574: READING PROGRAM ORGANIZATION, ADMINISTRATION, AND SUPERVISION	3 s.h.
Successful completion of Reading Specialist Praxis Exam required for certification.	
SCIENCE EDUCATION CONCENTRATION	18 s.h.
Core Competencies	12 s.h.
RESEARCH—SCED 538 OR ED 520	3 s.h.
PEDAGOGY—SCED 502	3 s.h.
CURRICULUM—SCED 538 OR ED 523	3 s.h.
PROFESSIONAL SEMINAR—SCED 541 OR ED 578	3 s.h.
Science Education concentration area	12 s.h.
SCED 501: SEMINAR IN SCIENCE MISCONCEPTIONS	3 s.h.
SCED 505: INVESTIGATION IN THE SCIENCES	3 s.h.
SCED 555: HISTORY OF SCIENCE	3 s.h.
SCED 5XX: SCIENCE EDUCATION ELECTIVE	3 s.h.
Electives: A total of six credits from education, science education, special education, science, mathematics, or other graduate areas with approval of advisor. A minimum of 18 science education credits are required for the degree. A maximum of 3-6 thesis credits (ED 701) may be substituted for electives.	
TECHNOLOGY CONCENTRATION	12 s.h.
ED 517: EDUCATIONAL COMPUTER APPLICATIONS	3 s.h.
ED 534: WORKSHOP IN EDUCATION—with permission of academic advisor	3 s.h.
ED 599: SPECIAL TOPICS IN EDUCATION—with permission of academic advisor	3 s.h.
ED 617: ADVANCED EDUCATIONAL TECHNOLOGY	3 s.h.
ED 620: INTERNET APPLICATIONS FOR K-12 EDUCATORS	3 s.h.
MMAJ 558: SOCIETY, LAW, AND MEDIA TECHNOLOGY	3 s.h.
ED/CIS 649: EDUCATIONAL TECHNOLOGY LEADERSHIP	3 s.h.
MMAJ/CIS 650: ADVANCED TECHNOLOGY APPLICATIONS	3 s.h.

MMAJ/CIS 651: NETWORKING MEDIA TECHNOLOGY CENTERS	3 s.h.
LS 540: MULTICULTURAL SOURCES AND SERVICES FOR EDUCATORS AND LIBRARIANS	3 s.h.
Additional courses as approved by advisor	
WORLD LANGUAGES CONCENTRATION	18 s.h.
SPAN 417: SPANISH LANGUAGE AND CULTURE IMMERSION	3 s.h.
SPAN 501:* SPECIAL TOPICS IN HISPANIC LANGUAGE AND CULTURE	3 s.h.
SPAN 540: HISPANIC FILM	3 s.h.
SPAN 561: SUPERVISED READINGS IN HISPANIC LITERATURE	3 s.h.
ED 439: METHODS OF TEACHING AND EVALUATING WORLD LANGUAGES	3 s.h.
FR 417: FRENCH LANGUAGE AND CULTURE IMMERSION	3 s.h.
FR 501: SPECIAL TOPICS IN FRENCH LITERATURE AND CULTURE	3 s.h.
FR 551: ADVANCED SUPERVISED READINGS IN FRENCH LITERATURE	3 s.h.
FR 557: ADVANCED FRENCH LINGUISTIC AND CULTURAL IMMERSION	3 s.h.
GER 501: SPECIAL TOPICS IN GERMAN LITERATURE AND CULTURE	3 s.h.
GER 551: ADVANCED SUPERVISED READINGS IN GERMAN LITERATURE	3 s.h.
GER 557: ADVANCED GERMAN LINGUISTIC AND CULTURAL IMMERSION	3 s.h.

*Special topics courses which can be repeated
for a total of nine credits.

Electives: Six credits approved by advisor.

Electives **6 s.h.**

Electives can be from any of the concentration areas. To be selected from appropriate 400- or 500-level courses as approved by the advisor. A maximum of three credits of 400-level courses approved for graduate credit may be counted toward the degree. Please note that 400-level courses taken for undergraduate credit cannot be repeated for graduate credit. A maximum of 3-6 thesis credits may be substituted as electives.

Graduation Requirements

Students must complete 30 credit hours (33 credits for mathematics concentration) of required and advisor approved elective courses with a cumulative quality-point average of 3.00/4.00. Additionally, students are required to complete an online professional portfolio presentation or thesis defense.

Reading Specialist Certification

Satisfactory completion of the M.Ed. with reading concentration meets the requirements for reading specialist certification. Students desiring reading specialist certification without the degree must complete the following sequence of courses:

Reading Specialist Certification **27 s.h.**

ED 520: INTRODUCTION TO RESEARCH	3 s.h.
ED 563: READING PEDAGOGY	3 s.h.
ED 564: EVIDENCE-BASED LITERACY INSTRUCTION	3 s.h.



Education

ED 567: SECONDARY, COLLEGE, AND CONTENT AREA READING INSTRUCTION	3 s.h.
ED 569: ASSESSMENT OF LITERACY	3 s.h.
ED 570: PRACTICUM I: ANALYSIS	3 s.h.
ED 571: PRACTICUM II: INSTRUCTION	3 s.h.
ED 574: READING PROGRAM ORGANIZATION, ADMINISTRATION, AND SUPERVISION	3 s.h.
ED 578: PROFESSIONAL SEMINAR.....	3 s.h.

Reading Specialist Test (PRAXIS) required.

Placement

Typically, graduate program candidates are already involved in professional careers that are being enhanced by the graduate studies. For those people who are without career placement, the faculty and the university Career Services Center can provide assistance in seeking appropriate employment. Students should register with Career Services before graduation.

Graduate Assistantships

A limited number of graduate assistantships are granted for 10 and/or 20 hours of departmental service per week in exchange for a waiver of tuition and a stipend. Applications are available in the Graduate Studies office and should be submitted with the application for admission to graduate study.

Advisement

Upon acceptance into the graduate program, students will be assigned a department advisor who is qualified to assist the student in his or her specific career goals. The responsibility for meeting all stated requirements for the master’s degree, however, is with the student.

Instructional Technology Specialist Certificate Program

Certified Instructional Technology Specialists (ITS) help educational institutions apply technology to improve teaching and learning. The ITS program emphasizes the use of instructional technology as it relates to specific learning outcomes. Clarion University’s program also addresses the dynamics of rural communities and the changing diversity of our urban areas through a multimedia approach.

Graduates of the ITS certificate program will be able to:

- determine appropriate uses of instructional technology in learning;
- evaluate materials and technologies;
- develop effective multimedia instructional materials;
- develop regulation-compliant media utilization plans;
- identify strategies to increase the use of instructional technology in underserved communities, including specific plans to reach culturally diverse and special needs; and
- utilize human resource management skills.

Program of Study

The ITS certificate may be pursued alone or as part of any Clarion University master’s degree program. The ITS Certificate program requires 24 semester hours.

ITS candidates must satisfy preparation standards set forth by the Pennsylvania Department of Education (PDE). Students may satisfy the PDE preparation standards for Instructional Technology Specialist by completing Clarion University’s ITS certificate program.

Admission Requirements

Clarion University's general admission requirements apply, with the following additions:

- A baccalaureate degree from an acceptably accredited college or university.
- Undergraduate minimum QPA is 3.0 or above (on a 4.0 scale).
- Three faculty and/or professional recommendations; recommendation forms should document applicant's potential and/or effectiveness in the areas of teaching ability and/or professional performance.
- Admission to provisional status may be granted at the discretion of the graduate faculty if the applicant's QPA is less than 3.0/4.0 scale. Regular status may be granted upon completion of 12 semester hours of graduate study with a minimum of 3.0/4.0 average.

Program Requirements

Required Courses 18 s.h.

MMAJ 558: SOCIETY, LAW, AND MEDIA TECHNOLOGY	3 s.h.
ED 520: INTRODUCTION TO RESEARCH	3 s.h.
ED/MMAJ 540: PRINCIPLES OF INSTRUCTIONAL DESIGN IN EDUCATIONAL TECHNOLOGY	3 s.h.
ED 617: ADVANCED EDUCATIONAL TECHNOLOGY	3 s.h.
ED 620: INTERNET APPLICATIONS FOR K-12 EDUCATORS	3 s.h.
ED/CIS 649: EDUCATIONAL TECHNOLOGY LEADERSHIP	3 s.h.

Electives 6 s.h.

MMAJ/CIS 650: ADVANCED TECHNOLOGY APPLICATIONS	3 s.h.
MMAJ/CIS 651: NETWORKING MEDIA TECHNOLOGY CENTERS	3 s.h.
LS 540: MULTICULTURAL LIBRARY SERVICES AND SOURCES	3 s.h.

Students without teaching certification must take:

ED 522: ANALYSIS OF TEACHING	3 s.h.
ED 523: CURRICULUM DEVELOPMENT AND EVALUATION	3 s.h.

Students without technology expertise must take:

ED 517: EDUCATIONAL COMPUTER APPLICATIONS	3 s.h.
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A student must maintain a QPA of 3.0 on a 4.0 scale.

Graduate Pennsylvania Secondary Teacher Certification Program

Clarion University's Graduate-level Secondary Teacher Certification Program is designed for those who have earned a B.A. or B.S. in a specific discipline and who wish to earn Pennsylvania secondary teacher certification. Applicants must be U.S. citizens and must complete the methods course and practicum in Pennsylvania. The web-based certification program is available in several content areas; i.e., social studies, English, modern languages, biology, chemistry, physics, earth and space science and

general science. Related content area degrees will be examined by departmental committee for alignment with state certification and accreditation requirements before admission; i.e., Pennsylvania certification requires that candidates have six credits of college-level mathematics and six credits of college-level English literature and composition. Deficiencies may be completed before or during education certification courses. However all deficiencies must be satisfied before the practicum semester.

Application and Program Requirements

Include the Following:

- Evidence (official transcripts) of a bachelor's degree in the specific content area from an acceptable accredited college or university.
 - Undergraduate minimum QPA is 3.0 or above on a 4.0 scale.
 - Admission on a provisional status may be granted at the discretion of the faculty committee if the applicant's QPA is less than 3.0/4.0, and/or the applicant has course deficiencies. Regular status may be granted upon completion of 12 semester hours of coursework with a minimum of 3.0/4.0 average.
- Three current (within 1 year) letters of recommendation.
- Successful telephone interview.
- Have access to a computer with reliable Internet capability.
- Pennsylvania certification requires two college-level English courses and two college-level mathematics courses. This requirement must be completed before program admission.
 - Two college-level English courses are required, one composition and one Literature with a grade of "C" or higher
 - Two college-level mathematics courses are required with a grade of "C" or higher
- Pass the Praxis I exam.
- Pass the Praxis II in their content area. If the Praxis II is not passed, you are not considered subject matter qualified. (Note: Modern languages candidates must also take the Fundamental Subjects: Content Knowledge Praxis Exam)
- Provide documentation of current Pennsylvania Act 33 and Act 34 clearances and FBI clearance.
- Verification of a valid health examination and negative Tuberculin test.
- Identify two potential school districts for the practicum placement and provide contact information to Clarion University's Office of Field Services.

- See the Quick Facts page link at www.clarion.edu/43479 for more information about Praxis exams and clearances.
- Applicants must be U.S. citizens.

Admission to Practicum (Student Teaching):

- QPA an overall 3.0/4.0 minimum in program coursework is required.
- Satisfactory completion of all program coursework.
- 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.

Certification:

- Maintain 3.0 QPA.
- Satisfactorily complete all program requirements including coursework and field work, including a minimum two satisfactory ratings on the PDE430 Student Teacher Observation form.
- Complete the application for certification and pay certification fee.

- Receive recommendation for certification from the dean, College of Education and Human Services, or current certification officer.

Required courses33 s.h.

ED 505	TEACHING CONTENT TO ENGLISH LANGUAGE LEARNERS	3 s.h.
ED 517:	EDUCATIONAL COMPUTER APPLICATIONS	3 s.h.
ED 524:	FOUNDATIONS IN EDUCATION.....	3 s.h.
ED 530:	CONNECTING STANDARDS, INSTRUCTION AND ASSESSMENT	3 s.h.
ED 534:	GRADUATE CERTIFICATION PRACTICUM	3 s.h.
ED 567:	SECONDARY, COLLEGE AND CONTENT AREA READING INSTRUCTION	3 s.h.
SPED 418:	EXCEPTIONALITIES IN THE REGULAR CLASSROOM.....	3 s.h.
SPED 441:	TEACHING STUDENTS WITH DISABILITIES IN THE SECONDARY CLASSROOM	3 s.h.
SPED 442:	DIFFERENTIATED INSTRUCTION IN INCLUSIVE SETTINGS.....	3 s.h.

Chose one from the Following:

ED 439:	METHODS OF TEACHING AND EVALUATING MODERN LANGUAGE	3 s.h.
ED 518:	TEACHING SECONDARY LANGUAGE ARTS ...	3 s.h.
ED 531:	TEACHING SECONDARY SOCIAL STUDIES	3 s.h.
ED 532:	TEACHING SECONDARY SCIENCE FOR UNDERSTANDING	3 s.h.

Master of Education Courses

A maximum of three credits from the 400-level courses listed in the sections below can be taken for graduate credit with permission from the graduate program coordinator. Any 400-level courses taken for undergraduate credit cannot be repeated for graduate credit.

Pre-K–4th Grade (Early Childhood) Courses

- ECH 413:** *INTERACTIONS IN EARLY CHILDHOOD SETTINGS* **3 s.h.**
Explores knowledge and skills needed to be a leader in early childhood. Emphasis will be placed on developing and managing a caring learning environment that enhances positive interactions among children, parents, staff, instructional teams, and community members. Grant writing, advocacy ethics of professionalism will also be explored. Field experience will consist of a "Stand for Children" advocacy project.
- ECH 501:** *EARLY CHILDHOOD CURRICULUM AND INSTRUCTION* **3 s.h.**
Early Childhood Curriculum and Instruction focuses on developmentally appropriate curriculum design and implementation for infants, toddlers, and young children. Emphasis will be given to teaching to enhance development and learning, constructing appropriate curriculum, creating a caring community of learners, and establishing reciprocal relationships with families. Summer, on demand.
- ECH 502:** *EARLY CHILDHOOD CURRICULUM AND ASSESSMENT* **3 s.h.**
Early Childhood Curriculum and Assessment focuses on the assessment of individual infants, toddlers, and young children's development and learning as an essential component of planning and implementing appropriate curriculum. The importance of the learning community and family relationships to appropriate assessment will be emphasized. Action research will be conducted utilizing developmentally appropriate assessment practices. Prerequisite: ECH 501. Summer, on demand.
- ECH 505:** *THE HEALTHY INFANT, TODDLER, AND YOUNG CHILD* **3 s.h.**
Exploration of the factors that effect and support the development of a healthy lifestyle in infants, toddlers, and young children. Knowledge and skills will be developed in understanding and appreciating foundations and development of movement, health and safety issues, programmatic development, and building partnerships. Summer, on demand.
- ECH 510:** *LEADERSHIP IN EARLY CHILDHOOD EDUCATION AND CARE* **3 s.h.**
Leadership in Early Childhood Education and Care explores and develops the key components in the design of a quality early childhood program and in the development of visionary leadership skills. Participants will be guided through the areas of need assessment, licensing and accreditation procedures, financial matters, curriculum, environment, policies, management skills, community support, and staff development and mentoring. Summer, on demand.

ECH 512: SUPPORTING CHILDREN IN HOMES, SCHOOLS, AND COMMUNITIES 3 s.h.

This course will examine the factors in families and society that influence young children as they grow. Students will review data and current trends and identify successful models for supporting children and families. Various cultures, family forms, learning styles, and physical and mental abilities will be studied. Emphasis will be placed on collaboration between schools, home, and communities.

Education Courses**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.

ED 414: VOLUNTEERS FOR LITERACY 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: 2.5 QPA minimum, sophomore or above standing, and consent of instructor.

ED 501: SEMINAR IN CRITICAL EDUCATIONAL ISSUES 3 s.h.

Examines the current critical educational issues with special emphasis on school funding, legal issues, gender equity, curriculum and cultural issues, and school reform.

ED 502: CREATIVE RESPONSE TO CONFLICT 3 s.h.

A study of 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.) Elective course in either the undergraduate or graduate program. Prerequisite: ED 121 or 122 for undergraduate credit. Summer session only, on demand.

ED 505: TEACHING CONTENT TO ENGLISH LANGUAGE LEARNERS 3 s.h.

Introduces participants to background, methods, and strategies needed to effectively teach content to English language learners. Explores the importance of native language support in achieving academic success and the teacher's role in building a safe classroom where diversity of languages and cultures are welcomed and encouraged. Requires active participation through class discussion, evaluation, and development of materials and instructional plans. Prerequisite: ED 524 or equivalent.

ED 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 509: OBSERVATIONS 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 observe and participate in urban classrooms. Students travel in university vehicles to visit schools in major urban areas and spend a minimum of five consecutive days participating in urban classrooms. Prerequisite: Junior-level standing or consent of instructor. Offered each year during Summer Pre-session, on demand.

ED 517: EDUCATIONAL COMPUTER APPLICATIONS 3 s.h.

Provides in-service educators (K-12) who have had little or no computer experience with the knowledge, skills, and attitudes necessary to use microcomputers as instructional tools in their classrooms. While acquiring computer skills, students will explore, use, and demonstrate competence in each of the following areas: word processing, databases, spreadsheets, graphics, multimedia, instructional design, telecommunications, and major issues associated with the use of technology in education. The course will provide in-service teachers with the knowledge base to make appropriate decisions regarding the use of technology in their respective classrooms. Not available to students who have taken ED 217 since summer 1994.

ED 520: INTRODUCTION TO RESEARCH 3 s.h.

This seminar course covers the selection, investigation, and writing of a research topic. Students are introduced to the planning of research projects, major methods of obtaining data, descriptive statistics, statistical inferences, methods of analysis and critical evaluation of published research, and the preparation of written reports. Proposed research problems and procedures are prepared for discussion and critical analysis. Offered each semester and summer.

ED 521: INSTRUCTIONAL LEADERSHIP SKILLS 3 s.h.

Involves a survey of various theories, models, and styles of leadership, followed by the application of leadership skills in teacher-pupil and teacher-colleague relationships.

ED 522: ANALYSIS OF TEACHING 3 s.h.

Presents an analysis of various teaching models and instructional designs. Lessons and clinical field experiences applying course competencies are critiqued by peers and faculty so as to expand the teaching repertoire of classroom teachers. Offered Fall Semester only.

- ED 523:** *CURRICULUM DEVELOPMENT AND EVALUATION* **3 s.h.**
Presents philosophic, psychological, and social foundations of the school curriculum as well as principles of curriculum development, curriculum design, curriculum implementation, and curriculum evaluation with an emphasis on K-12 models. A range of views both historical and current is presented along with curriculum issues, trends, and future directions. Ideologic biases from traditional to pragmatic and postmodern are considered across major time frames for the 20th century and early 21st century. Offered Spring Semester only.
- ED 524:** *FOUNDATIONS IN EDUCATION* **3 s.h.**
By exploring the social realities and challenges confronting today's diverse classrooms and the teaching profession, this course introduces pre-service teacher candidates to the foundations of education through an examination of the historical, philosophical, and social context of American education as well as the cognitive, psychological, and social-emotional perspectives of the classroom in a multicultural society. By exploring the actuality of career commitment to the teaching profession, the course prepares pre-service teacher candidates for their role in today's diverse classrooms with the essential knowledge, skills, and disposition necessary to become reflective practitioners. Prerequisite: Pass Praxis I.
- ED 526:** *SOCIOLOGY OF EDUCATION* **3 s.h.**
This course is an analysis of the public school as an institution in modern societies and its operation in complex social structures. The course draws upon the science of sociology and other social fields to explain the operation of the school as one of the social systems which operate to influence the development of people in becoming efficient and cooperative members of society.
- ED 530:** *CONNECTING STANDARDS, INSTRUCTION, AND ASSESSMENT: DESIGNING AND IMPLEMENTING AUTHENTIC ASSESSMENT IN THE WORLD OF STANDARDS* **3 s.h.**
Provides educators with a brief review of the purpose and process of assessment and to introduce them to design options available in designing and implementing authentic assessment. Students acquire, synthesize, interpret, and discuss a range of topics dealing with assessment in the educational process. Emphasizes a backward design process for curriculum development that links standards, curriculum, instruction, and embedded assessment. Students construct and evaluate a variety of assessment tools with a particular emphasis on authentic assessment. Every other year and/or as needed.
- ED 531:** *TEACHING SECONDARY SOCIAL STUDIES* **3 s.h.**
Prepares social studies candidates for teaching diverse learners in a secondary setting through field-based experiences; emphasizes critical pedagogical methods, strategies, and research-based best practices to make social studies content comprehensive to secondary students; expands on models of differentiated instructional design, effective interdisciplinary planning, and technology integration to teach content; builds a repertoire of teaching strategies to enhance students' diverse learning in the secondary classroom; emphasizes NCSS essential skills for social studies and disciplinary standards for history, geography, civics, government, economics, and behavioral sciences. Prerequisites: Completion of the five required courses in the Graduate Secondary Teacher Certification Program (15 s.h.)
- ED 532:** *TEACHING SECONDARY SCIENCE FOR UNDERSTANDING* **3 s.h.**
Prepares post-baccalaureate candidates to teach the sciences in secondary schools. Emphasizes teaching science for understanding and application of science knowledge. Includes basic curriculum design-formulating goals and objectives, selecting and organizing content, developing skill in using a variety of teaching strategies, and evaluating pupil progress. Stresses the inquiry approach to teaching science. Includes observations and teaching experiences in schools. Prerequisite: ED 534, SPED 418. Fall/Spring as needed.
- ED 533:** *RECENT DEVELOPMENTS IN ELEMENTARY SOCIAL STUDIES* **3 s.h.**
Students explore recent trends in promoting learning in the social studies as well as study current problems involved. Social forces at work today and their effect on curriculum development are considered.
- ED 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 537:** *STRATEGIES AND PROBLEMS OF TEACHING ELEMENTARY SCHOOL MATHEMATICS* **3 s.h.**
Deals with recent trends and methods of teaching mathematical concepts and skills appropriate to the elementary grade level. Particular attention is given to diagnostic procedures and to a "hands-on" laboratory approach. Classes are conducted in a well-equipped elementary mathematics laboratory. Recent research which applies to the teaching and learning of mathematical skills and concepts is considered.
- ED/MMAJ 540:** *PRINCIPLES OF INSTRUCTIONAL DESIGN IN EDUCATIONAL TECHNOLOGY* **3 s.h.**
Focuses on systematic procedures for designing, developing, evaluating, and revising instruction to meet identified goals and objectives for promoting educational technology. Instructional design theories and applications are examined. The appropriateness and production of both projected and non-projected multimedia are explored in the production of instructional solutions for the targeted audience including the K-12 community and other training and development learning environments. Fall, annually.
- ED 554:** *GRADUATE CERTIFICATION PRACTICUM* **6 s.h.**
A professional practicum that requires the application and integration of instruction, management, and professional knowledge and competencies in a school setting. Secondary certification candidates participate in a 12-week teacher internship in their certification area under the direction of a classroom cooperating mentor teacher and a university supervisor. Prerequisites: Completion of the five required courses in the Graduate Level Secondary Teacher Certification Program (15 s.h.), completion of the required professional course in certification area (3 s.h.) with a minimum grade of B, a cumulative 3.0 QPA, and satisfactory standing in admission and retention standards in the college. Each semester.

- ED 558:** *PRACTICUM SEMINAR* **3 s.h.**
 Supports teaching interns in the classroom with discussions of classroom management problems and strategies, and organization as a path to fewer management issues. Includes teacher effectiveness research and its application to instructional strategies and materials, classroom and behavior management, as well as inclusion strategies for students with special needs. Web-based asynchronous seminar concurrent with student teaching internship. Prerequisite: Must be taken concurrently with ED 554. Each semester.
- ED 563:** *READING PEDAGOGY* **3 s.h.**
 Students define and investigate reading as related to the individual learner. Study is made of the current research into sequential and systematic reading development and the application of multi-dimensional techniques, strategies, and materials in the teaching of reading K-12 for both narrative and expository structures. Prerequisite: Teaching certification. Annually.
- ED 564:** *EVIDENCE-BASED LITERACY INSTRUCTION* **3 s.h.**
 Students will review the major national studies in literacy since the 1960s and investigate current research on various literacy topics for the purpose of developing a model of best practice based on inquiry and reflection.
- ED 565:** *READING AND LANGUAGE ARTS IN EARLY CHILDHOOD* **3 s.h.**
 Study and observation of the child's early reading behavior during early childhood and observation of other aspects of language arts; exercises for listening experiences and developing writing skills; assessment of some of the causes of difficulties in learning to read and to use language effectively.
- ED 567:** *SECONDARY, COLLEGE, AND CONTENT AREA READING INSTRUCTION* **3 s.h.**
 Survey of reading programs and principles at secondary and post-secondary levels; examination of materials and strategies for various instructional settings and populations with an emphasis on secondary content area reading. Fall, annually.
- ED 568:** *LANGUAGE AND LITERACY* **3 s.h.**
 A study of literacy acquisition which includes consideration of developmental and sociocultural factors. The course examines instructional practices which utilize children's literature in teaching the language arts. Writing is emphasized. Prerequisite: Teaching certification. As needed.
- ED 569:** *ASSESSMENT OF LITERACY* **3 s.h.**
 Provides an in-depth analysis of assessment strategies and techniques in the field of literacy. Features of this course include evaluating, implementing, and analyzing data gathered from formal and informal assessment approaches for the purpose of planning instruction. Introduction to literacy profile. Prerequisite: Two graduate-level literacy courses. Spring, annually.
- ED 570:** *PRACTICUM I: ANALYSIS* **3 s.h.**
 The investigation of an individual's background to determine possible casual factors for underachievement in reading through (1) the selection and administration of appropriate diagnostic instruments, and (2) a sensitive interpretation of the cumulative results. Prerequisite: ED 569 and permission of the instructor. Course must be taken concurrently with ED 571. Summer, annually.
- ED 571:** *PRACTICUM II: INSTRUCTION* **3 s.h.**
 Emphasizes the development of competency in the instructional process of addressing reading problems. Includes (1) learning the techniques used for corrective instruction, (2) learning how to teach individuals strategies which will enable them to be readers, (3) developing expertise in using materials related to the immediate needs of individuals, and (4) preparing a literacy profile which suggests to schools and other agencies procedures to use for a student's academic progress. Prerequisites: ED 568, ED 569, and permission of the instructor. Course must be taken concurrently with ED 570. Summer, annually.
- ED 574:** *READING PROGRAM ORGANIZATION, ADMINISTRATION, AND SUPERVISION* **3 s.h.**
 The organization, administration, and supervision of reading programs from kindergarten through high school. Particular emphasis is given to the functions of a reading specialist and development of a curriculum guide for reading, organizational patterns in reading programs, and procedures for instituting and operating in-service reading education programs. Prerequisites: Two graduate-level literacy courses. Spring, annually.
- ED 575:** *SEMINAR IN CHILDREN'S LITERATURE* **3 s.h.**
 This seminar is an intensive study of various genres of children's literature, with emphasis upon correlating into study units books that appeal to the interests of boys and girls. A study of storytelling techniques and other literature sharing methods are included. Prerequisite: ELED 331 or LS 358.
- ED 576:** *ADVANCED SEMINAR IN READING AND LITERACY* **3 s.h.**
 The study and evaluation of research and current reports on reading education issues. Prerequisite: ED 560.
- ED 578:** *PROFESSIONAL SEMINAR* **3 s.h.**
 Intended as the capstone course for all graduate students in the Education Department graduate programs and the Instructional Specialist Certification Program. Students will focus on a classroom-based action research project which will serve as an integrating element for knowledge and experiences acquired during the graduate program. Students will recognize the integrity of classroom research and demonstrate proficiency in using and assisting classroom teachers in the process of collecting data, generating hypotheses, and implementing instructional changes grounded in inquiry and reflection. The project will synthesize course readings, discussions, group activities, applications, and observations. It will afford students the opportunity to share effective classroom practices and will require studies of and experiences in interpreting and analyzing pertinent research to promote professional growth. Students will be encouraged to view themselves as researchers of teaching and learning and as professionals whose continued growth can best be met through inquiry, reflection, and sustained dialogue with peers. Prerequisite: ED 520 or permission of graduate committee.

- ED 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.
- ED 600:** *RESEARCH* **3-6 s.h.**
- ED 617:** *ADVANCED EDUCATIONAL TECHNOLOGY* **3 s.h.**
Advanced course for graduate students who have a background in computers or who have taken ED 217 or ED 517 at Clarion University. Focuses on the development of knowledge and skills in: hardware/software maintenance; instructional design; educational electronic networking; sophisticated applications of integrated software; assistive technology; 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. Admission by permission of instructor. On demand.
- ED 620:** *INTERNET APPLICATIONS IN THE K-12 CLASSROOM* **3 s.h.**
Introduces K-12 educators and/or Technology Specialist Certificate candidates to the potentials of the Internet and assists them in using the multi-faceted resource as an effective teaching tool within the classroom. Participants are introduced to the history, structure, and overall capabilities of the Internet, including Electronic Mail, Telnet, File Transfer Protocol (FTP), World Wide Web, and Web-based distance education. Within the framework, students create their own Webpages, design online instructional lessons appropriate to their discipline, and demonstrate the integration of Internet/technology information throughout the K-12 curriculum. Annually.
- ED/CIS 649:** *EDUCATIONAL TECHNOLOGY LEADERSHIP* **3 s.h.**
Involves a survey of various theories, models, and styles of leadership, followed by the application of leadership skills in teacher-pupil, teacher-colleague, and teacher-administrator relationships and how those relationships are affected by the use of technology in schools and how technology, in turn, impacts these roles. Summer, annually.
- ED 701:** *THESIS* **3 s.h.**
Provides graduate students enrolled in M.Ed. programs with an elective course to focus on writing a professional research report in the student's field of study under the supervision of a graduate faculty member in the department. Upon completion, the thesis is presented to all members of the student's thesis committee. Both qualitative and quantitative investigations may be completed as a thesis. Thesis option may be taken in lieu of the comprehensive examination and, therefore, may be used in partial fulfillment for the Master of Education degree. Students must complete applications for independent study with their advisor before registering for ED 701. Prerequisite: ED 520 and ED 578 or permission of the Education Department graduate committee.

History Courses

- HIST 511:** *SEMINAR IN ANCIENT AND MEDIEVAL EUROPE* **3 s.h.**
Survey of major historical problems in the history of ancient and medieval Europe (c. 3000 B.C.E.–1300 C.E.). Much attention devoted to historiographic problems in secondary scholarship as well as to primary sources. Students will write an in-depth paper or lesson plan. Course may be taken twice (with consent of instructor).
- HIST 512:** *SEMINAR IN EARLY MODERN EUROPE* **3 s.h.**
Survey of major historical problems in the history of early modern Europe (1300–1789). Much attention devoted to historiographic problems in secondary scholarship as well as to primary sources. Students will write an in-depth paper or lesson plan. Course may be taken twice (with consent of instructor).
- HIST 513:** *SEMINAR IN MODERN EUROPE* **3 s.h.**
Survey of major historical problems in the history of modern Europe (1789–present). Much attention devoted to historiographic problems in secondary scholarship as well as to primary sources. Students will write an in-depth paper or lesson plan. Course may be taken twice (with consent of instructor).
- HIST 520:** *SEMINAR IN U.S. HISTORY TO 1877* **3 s.h.**
Survey of major historical problems in the history of the United States from colonial times to 1877. Much attention devoted to historiographic problems in secondary scholarship as well as to primary sources. Students will write an in-depth paper or lesson plan. Course may be taken twice (with consent of instructor).
- HIST 521:** *SEMINAR IN U.S. HISTORY SINCE 1877* **3 s.h.**
Survey of major historical problems in the history of the United States from 1877 to the present. Much attention devoted to historiographic problems in secondary scholarship as well as to primary sources. Students will write an in-depth paper or lesson plan. Course may be taken twice (with consent of instructor).
- HIST 530:** *NON-WESTERN HISTORY* **3 s.h.**
Survey of major historical problems in the area of African, Asian, or Latin American history (depending on the instructor). Much attention devoted to historiographic problems in secondary scholarship as well as to primary sources. Students will write an in-depth paper or lesson plan. Course may be taken twice (with consent of instructor).
- HIST 562:** *THE HOLOCAUST* **3 s.h.**
Explores the social policy of Nazi Germany as it was applied to various minority groups. Includes an examination of the evolution of the concentration camp from political prisons to death factories. Special attention is paid to the experience of the Jewish victims.

HIST 700: *THESIS* **3-6 s.h.**
 Independent research project on an approved topic supervised by a faculty member. Prerequisite: Permission of instructor. On demand.

Mathematics Education Courses

MAED 501: *TEACHING SECONDARY MATHEMATICS* **3 s.h.**
 Teachers learn how to integrate a variety of strategies in teaching secondary mathematics. They improve their understanding of mathematical concepts and apply the instructional strategies to improving student understanding. Prerequisite: Certification in Teaching–Mathematics.

MAED 511: *TECHNOLOGY FOR TEACHING SECONDARY MATHEMATICS* **3 s.h.**
 Designed to give secondary mathematics teachers an in-depth look at the research on the impact of technology on teaching and learning mathematics. Students will learn how to develop and critique technology experiences and will be exposed to new technologies and programs that aid in teaching mathematics. Prerequisite: Certification in Teaching–Secondary Mathematics or permission of instructor.

MAED 532: *TEACHING STATISTICAL REASONING* **3 s.h.**
 Quantitative Literacy (QL) is an exciting, standards-based approach for teaching statistical techniques in K-12 classrooms. Through stimulating practical activities, the TI-83 graphing calculator, and the statistical software FATHOM, teachers in the course explore real data focusing on classification, graphing, sampling, probability, simulation, and inference. The direct involvement and in-depth training enables teachers to experience first-hand the value of QL and gain confidence in their ability to incorporate it into their classrooms. The course includes a Fall follow-up session where teachers report the use of a quantitative reasoning activity in their own classroom. Prerequisite: Certification in Teaching–Secondary Mathematics.

MAED 537: *GEOMETRY/TRIGONOMETRY FOR SECONDARY TEACHERS* **3 s.h.**
 The course visits axiom systems, reviews the core theorems of high school geometry, considers advanced topics in Euclidean geometry, explores non-Euclidean geometries, examines area and transformations, looks at trigonometry, and includes student presentations of a relatively new geometric topic. Computer software (Geometer’s Sketchpad, Kaledomania, Maple,...) are at the center of the students’ work.

MAED 540: *DISCRETE MATHEMATICS FOR GRADES 7-12* **3 s.h.**
 A course to review and develop a sound mathematical foundation for the discrete mathematics topics covered in secondary school mathematics. Prerequisite: Certification in Teaching–Secondary Mathematics or permission of instructor.

MAED 550: *PRE-ALGEBRA FOR TEACHERS* **3 s.h.**
 Teachers learn how to integrate a variety of strategies in teaching concepts found in pre-algebra (grades 6-8). Improves understanding of mathematical concepts from an advanced perspective and applies the instructional strategies to improving student understanding. Prerequisite: Certification in Teaching–Mathematics teachers who are presently teachers of grades 5-9.

MAED 551: *ALGEBRA/NUMBER THEORY FOR SECONDARY TEACHERS* **3 s.h.**
 Examines pedagogy and uses recent technology to reinforce understanding of algebra and number theory topics covered in high school algebra and how to present them to students. Develops a deeper understanding of the principles underlying these topics, allowing greater ability to adapt teaching to meet the changing needs of students. Look at the effects technology has on subject matter and methods of teaching it. Prerequisite: MATH 451 or equivalent.

MAED 556: *RESEARCH IN MATHEMATICS TEACHING AND LEARNING* **3 s.h.**
 Investigates research in mathematics teaching and learning that has been conducted in the last century, particularly in the last three decades, to become more aware of critical issues within the field of mathematics education. Various areas are considered, including teachers’ knowledge and beliefs, students’ learning in number theory, rational numbers, algebra, and geometry, technology in mathematics education, and issues of affect and gender. Prerequisite: Certification in Teaching–Secondary Mathematics or permission of instructor.

MAED 571: *ANALYSIS FOR TEACHERS* **3 s.h.**
 Gives secondary mathematics teachers an in-depth look at the analysis covered in the secondary mathematics curriculum. The function concept is covered in great detail. Examines the historical development of calculus to provide insight into the fundamental theories of calculus (secondary level). Prerequisite: Certification in Teaching Secondary Mathematics or permission of instructor.

MAED 581: *PROBLEM SOLVING* **3 s.h.**
 Provides experience solving novel and often open-ended problems in multiple ways. Posing and solving problems drawn from rational numbers, number theory, algebra, measurement, and geometry helps students to reinforce and integrate various strands of their high school mathematics curriculum and to reason and communicate more effectively. Prerequisite: Certification in Secondary Mathematics Education or ED 339 and permission of instructor.

MAED 585: *APPLICATIONS AND MATHEMATICAL MODELING FOR TEACHERS* **3 s.h.**
 Use mathematics in representing and solving real world problems. Mathematical concepts from middle school and high school mathematics are applied to problems in social, physical, and biological sciences. Pedagogical and assessment issues are studied. Prerequisite: Certification in teaching, mathematics, or mathematical science teachers in grades 7 through 12.

MAED 590: *HISTORICAL DEVELOPMENT OF MATHEMATICS* **3 s.h.**
 Explores the development of mathematics, from the early development of numeration systems to modern mathematics. Learn how the technology and culture of different places and times affected the topics developed as well as the methods used. Discusses and develops ways to incorporate the information into classroom teaching and encourage cross-disciplinary connections.

Science Education Courses

- SCED 456: ELECTRONICS FOR THE HIGH SCHOOL SCIENCE TEACHER** 4 s.h.
 Intended for the science teacher who has had little or no previous course work in physics or mathematics. Covers the fundamental laws of electricity and magnetism, alternating current theory, and the theory and practical application of such devices as ammeters, voltmeters, oscilloscopes, vacuum tubes, transistors, power supplies, amplifiers, and oscillators. Examples of some of these devices will be built in the laboratory, and general procedures for troubleshooting faculty equipment will be illustrated. Summer only, on demand.
- 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. Students will build simple telescopes, spectroscopes, and other astronomical instruments. Summer only, on demand.
- SCED 466: FIELD PHOTOGRAPHY** 3 s.h.
 Teaches students how to use a modern camera and accessories to photograph subjects in the field. Includes techniques of close-up, telephoto, and wide-angle photography as well as film development, lighting, use of filters, and composition will be included. Provides students with opportunities to learn and practice techniques for photographing such subjects as small animals, birds, flowers, large animals, and other field subjects. Students provide camera and film. Summers only, on demand.
- SCED 500: SEMINAR 1-3 s.h.**
 Current topics in science education. May be repeated (as topics vary) up to nine credits. On demand.
- SCED 501: SEMINAR IN SCIENCE MISCONCEPTIONS** 3 s.h.
 A survey of current literature in the area of science misconceptions. Each student will research a topic and develop interviews and surveys to determine the misconceptions in the area. Fall, odd-numbered years.
- SCED 502: INVESTIGATIVE TECHNIQUES AND PROCESS APPROACH TO MODERN SCIENCE CURRICULA** 3 s.h.
 Enables elementary, middle, and junior high school teachers to use investigative techniques and the process approach in their own classrooms. Investigative techniques focus on developing skills in science processes such as observing, classifying, formulating hypotheses, collecting and analyzing data, and designing experiments. Includes experiences with modern elementary and junior high school science curricula. Two lecture and two lab hours. Fall, annually.
- SCED 503: SPECIAL TOPICS OF SCIENCE EDUCATION** 1-4 s.h.
 Studies of topical material under the guidance of the instructor. Maximum credit allowable toward graduation: 9 credits. Prerequisites: Permission of the instructor and the student’s graduate committee. On demand.
- SCED 505: INVESTIGATION IN THE SCIENCES** 3 s.h.
 Presents a survey of types of investigations. Emphasizes typical investigations which may be used as models for classroom use. Students will experiment with published experiments within their discipline and at the appropriate grade level as well as design their own. Two hours lecture, two hours laboratory. Fall, even-numbered years.
- SCED 530: FIELD BIOLOGY** 3 s.h.
 Field course designed to acquaint elementary, middle, and secondary teachers with the biological environment outside of the classroom as it pertains to plants and animals, their collection, identification, preservation, and ecology. Activities that are applicable to the public school will be provided. Summers, on demand.
- SCED 531: FIELD BOTANY** 3 s.h.
 Gives elementary, middle, and secondary teachers an understanding of the basic aspects of plant science. Emphasizes taxonomy, morphology, and life processes of the flowering and nonflowering plants as they relate to work done in elementary and secondary schools. Two lecture and two lab hours. Summer, on demand.
- SCED 532: FIELD ORNITHOLOGY** 3 s.h.
 This is primarily a course on the identification and natural history of birds of this area. The primary teaching methods will be illustrated lectures, identification practice via color slides, and field trips. Prerequisite: Basic biology. Summers, on demand.
- SCED 534: FIELD ZOOLOGY** 3 s.h.
 Field course designed to acquaint the elementary, middle, and secondary teachers with the biological environment outside the classroom as it pertains to animals, their collection, preservation, identification, and ecology. Activities that are applicable to K-12 schools will be provided. Summer, on demand.
- SCED 535: FIELD ECOLOGY** 3 s.h.
 Familiarizes elementary, middle, and secondary teachers with the relationships between plants and animals and their environment. Emphasizes field work. Frequent field trips to areas of particular ecological interest in northwestern Pennsylvania. Five field, laboratory and lecture hours. On demand.
- SCED 536: CHEMISTRY** 3 s.h.
 Lecture-laboratory course designed to give elementary, middle, and secondary teachers an understanding of basic chemistry. The chemistry of common experience in the public school is explored and the manipulation of chemical apparatus is given special attention. Two laboratory hours. On demand.
- SCED 537: PHYSICS** 3 s.h.
 Lecture-laboratory course designed to give elementary, middle, and secondary teachers an understanding of basic physics. Areas of concentration are the metric system, properties of matter, mechanics, atomic energy, heat, sound, light, magnetism, and electricity. Particular attention will be provided for the application of these areas to public school sciences. Two lecture and two laboratory hours. On demand.

- SCED 538: SCIENCE CURRICULUM 3 s.h.**
This course is designed to come late in the program when the student will have an adequate background for discussions centered around the various approaches to the teaching of science in the elementary, middle, and secondary schools. A study of the principles of curriculum construction, including curriculum origins, goals, objectives, scope and sequence, and evaluation. Spring, annually.
- SCED 539: RESOURCES AND MATERIALS 3 s.h.**
Gives teachers experience with literature, equipment, and materials used in teaching science in the school. Explores physical and human resources from national, state, and local communities. Students will be given ample opportunity to develop and try out teacher-made resources. On demand.
- SCED 540: SUPERVISION OF SCIENCE TEACHING 3 s.h.**
Prepares science educators (elementary, middle, junior high, and senior high school teachers) for leadership and supervisory roles in the improvement of science curricula and instruction. Spring, even-numbered years.
- SCED 541: SCIENCE SPECIALIST INTERNSHIP IN TEACHING AND SUPERVISION 1-4 s.h.**
Gives practical experiences in working with teachers and children as a specialist in science teaching, supervising, and assisting in curriculum work. On demand.
- SCED 550: ASTRONOMY 3 s.h.**
Deals with the planets and their satellites, including the earth and moon, with comets and meteors, with the sun, the stars and clusters of stars, with the interstellar gas and dust, with the Milky Way, and other galaxies that lie beyond the Milky Way. Includes the fundamental concepts of cosmology and the basic principles of light. Three lecture and/or laboratory hours. On demand.
- SCED 551: GEOLOGY 3 s.h.**
A study of rocks, minerals, and geologic formation as they are related to elementary and secondary school science. Past history of the earth as well as present geologic phenomena are discussed. Fields trips to areas of geologic interest are taken. Two lecture and two field or laboratory work hours. On demand.
- SCED 552: GEOMORPHOLOGY 3 s.h.**
A study of the interaction between humans and the physical environment as it is related to elementary and secondary school science. On demand.
- SCED 553: METEOROLOGY 3 s.h.**
Stresses fundamentals of weather and weather instruments, maps, records, as well as other activities applicable to elementary and secondary school science. Three lecture and/or laboratory hours. On demand.
- SCED 554: RECENT ADVANCES IN SCIENCES 3 s.h.**
Acquaints students with significant developments in the field of science that have taken place in the last two decades. Assumes a background of information in the fundamentals of the biological and physical sciences. Three lecture hours. On demand.
- SCED 555: HISTORY OF SCIENCE 3 s.h.**
A study of the history of science with accent on the way in which broad scientific principles have developed and those who played a part. On demand.
- SCED 556: RESEARCH GRANT WRITING FOR SCIENCE EDUCATION 3 s.h.**
Covers topics to analyze, critique, and develop a research proposal. Students will study the methodology of research as well as the mechanisms of obtaining external funding for their proposed projects. The students will develop problems, search literature, write rationales, critically evaluate each other's work, and turn in a complete research or funding proposal. Spring, annually. May be repeated (as topics vary) up to six credits.
- SCED 560: SCIENCE CURRICULUM IN THE MIDDLE AND JUNIOR HIGH SCHOOL 3 s.h.**
A course designed to acquaint students with modern science instructional strategies and curricula for the junior high/middle school levels. Recent developments in curricular objectives, the unique physiological and psychological qualities of middle level students, science content, teaching strategies, and laboratories are stressed. Fall, annually.
- SCED 561: MODERN ASTRONOMY 1 s.h.**
Covers recent developments in astronomy which are not normally covered in a traditional astronomy course. Topics include stellar, evolution, pulsars, neutron stars, black holes, quasars, and supernovae. Summer, on demand.
- SCED 562: TOPICS IN COSMOLOGY 1 s.h.**
This short course deals in a non-mathematical manner with questions related to the universe as a whole—its beginning, geometry, present state, and future development. Topics include the origin of the elements, expansion of the universe, geometry of the universe, and observational evidence. Summer, on demand.
- SCED 563: DEMONSTRATIONS AND PROJECTS IN ASTRONOMY 3 s.h.**
Emphasizes the selection and preparation of demonstrations and projects in astronomy for teachers of elementary and secondary schools. Summer, on demand.
- SCED 566: ADVANCED FIELD PHOTOGRAPHY 3 s.h.**
Teaches in-service teachers how to use the advanced aspects of modern SLR 35mm camera and accessories to photograph science subjects in the field. Includes advanced techniques of close-up, telephoto, and photomacrography, as well as use of advanced depth of field, lighting, and composition. Students learn advanced techniques of photographing flora and fauna, geological, astronomical, meteorological, and ecological subjects. Students provide camera and film. Prerequisites: SCED 466 or permission of instructor. Summer, on demand.

- SCED 567: SLIDE PROGRAM DEVELOPMENT 3 s.h.**
 This course is normally taken concurrently with SCED 466: Field Photography or SCED 566: Advanced Field Photography. It is designed to be taken by in-service teachers and will teach them how to put together short, single-concept slide programs to be used in their elementary or secondary science classrooms. The Karplus and Generative Models of teaching concepts will be stressed for use with the program. Prerequisites: SCED 466 or SCED 566 or must be taken concurrently, or permission of instructor. Summer, on demand.
- SCED 570: LOCAL SCHOOL CURRICULUM DEVELOPMENT IN SCIENCE 3 s.h.**
 Assists individual or groups of teachers with sufficient science background to develop, improve, or implement science curricula for the elementary and secondary schools. Focuses on the production of curricular materials for actual use and evaluation. Permission of instructor. Each semester. May be repeated (as topics vary) for nine credits.
- SCED 571: PROGRAM FOR IMPROVING ELEMENTARY SCIENCE (PIES) 3 s.h.**
 PIES promotes effective science teaching and instructional leadership in science in the elementary school. In-service teachers, through hands-on investigations in the life, physical, and earth sciences, acquire knowledge of science, increase their skills in using science process skills, and develop positive attitudes toward science. A similar course, SCED 471: Program for Improving Elementary Science, is offered for undergraduate, senior, elementary majors. On demand. Permission of instructor required.
- SCED 572: PROGRAM FOR ENHANCING EDUCATIONAL LEADERSHIP IN SCIENCE (PEELS) 1 s.h.**
 PEELS involves elementary administrator/teacher teams in exemplary science experiences. Teams are instructed in science process skills, effective science teaching strategies, development of science program goals, and the application of science education research to elementary school science programs. Each team designs and implements an action plan which focuses on specific actions for the improvement of science in their own schools. On demand. Permission of instructor required.
- SCED 573: CREATIVE INTEGRATION OF SCIENCE IN ELEMENTARY EDUCATION (CISEE) 3 s.h.**
 CISEE helps in-service elementary teachers learn how to integrate science content and science-process skills with other subject areas, including reading and language arts, math, social studies, physical education, art, music, and microcomputer education. Emphasis on the use of hands-on investigations; teachers are required to design and implement lessons for their own students which demonstrate the integration of science and other elementary curriculum areas. On demand. Permission of instructor required.
- SCED 574: SCIENCE AND SOFTWARE FOR ELEMENTARY TEACHERS 2 s.h.**
 Helps elementary teachers identify, select, and integrate science courseware appropriate for implementation into existing elementary school science curricula. Participants use exemplary science courseware to introduce, enhance, and reinforce related hands-on science activities. The culminating project for this course is the presentation of action research findings related to the relationships between microcomputers and hands-on elementary school science. On demand. Permission of instructor required.
- SCED 575: CAREER ORIENTATION IN SCIENCE AND TECHNOLOGY (COST) 3 s.h.**
 COST involves middle/junior high teachers in utilizing the skills of community resource people to demonstrate the need for science in many careers, including those not traditionally associated with science. The format of the course follows the COMETS (Career Orientated Modules to Explore Topics in Science) model. Teachers learn where to find science-resource people and how to work with the resource person to present lessons in the classroom. Teachers implement lessons with a resource person during the course. On demand. Permission of instructor required.
- SCED 576: SCIENCE TECHNOLOGY AND SOCIETY: TOPICS FOR TEACHERS 3 s.h.**
 Interdisciplinary course designed to acquaint students with information, curricula and teaching methodologies appropriate for integrating STS topics into science and social studies instruction. Includes topics in natures of science, history of science, history of technology, ethical decision-making and the influence of changes in science and technology upon society. Required for all secondary science and social studies education majors. Spring Semester.
- SCED 577: MICROCOMPUTERS SCIENCE LABORATORY INTERFACE 1 s.h.**
 This course is designed to instruct elementary and/or secondary science teachers in basic interfacing and interfacing applications for their own classrooms. Course participants construct interfacing materials, set up related science investigations, and analyze data collected from the constructed probes. Course participants also explore possible uses for interfacing equipment in the science curriculum. On demand. Permission of instructor required.
- SCED 578: INFORMATION TECHNOLOGY EDUCATION FOR THE COMMONWEALTH (ITEC I) 3 s.h.**
 ITEC I is designed to provide teachers with computer literacy, programming skills, and experiences with exemplary courseware and software. The course is designed specifically for computer novices. Teachers will learn to operate and program microcomputers while developing skills needed for teaching their students to use microcomputers for classroom applications. The course also prepares teachers to evaluate courseware and software appropriate for use in their school curriculum. On demand. Permission of instructor required.
- SCED 579: INFORMATION TECHNOLOGY EDUCATION FOR THE COMMONWEALTH (ITEC II) 3 s.h.**
 Provides K-12 educators with intermediate-level competencies to effectively integrate microcomputer courseware, hardware, and related microprocessor technology into the teaching and learning process. Instructional theory for the design and evaluation of solutions to problems of learning, and using computer technology as a tool, will also be emphasized in the course. Students will complete a computer-generated portfolio of related lesson plans, handouts, transparencies, etc. On demand. Permission of instructor required.

SCED 585: *PLANETARIUM OPERATION AND MANAGEMENT* **3 s.h.**
 An introduction to the techniques of operation and maintenance of planetarium projectors. Opportunities are provided for writing and presenting programs at various levels of instruction. The use of auxiliary projectors, the production of audiovisual materials, multimedia displays, and live versus programmed presentations are emphasized. Prerequisite: ES 200 and 201 or consent of instructor. On demand.

SCED 600: *RESEARCH PROJECT IN SCIENCE EDUCATION* **1-3 s.h.**
 With the approval of his or her advisor, a student may research a selected topics related to the teaching of elementary and/or secondary science. Permission of instructor. Each semester. Maximum credits allowable toward graduation: 9 credits.

World Languages Courses

ED 439: *SECOND LANGUAGE ACQUISITION AND METHODS OF TEACHING AND EVALUATING WORLD LANGUAGES* **3 s.h.**
 Examination of the psychological and linguistic foundations of modern language acquisition. Techniques of teaching and evaluating modern languages and cultures. Analysis of recent research in the area of second language acquisition with a focus on the integration of the National Standards for Foreign Language Education.

FR 417: *FRENCH LITERATURE AND CULTURE IN AN IMMERSION SETTING* **3 s.h.**
 This course, taught in France, includes three core components: 1. Contemporary French culture, 2. French literature (with focus on a specific topic or author), and 3. French art history, as well as mandatory field trips and informal cultural experiences. Graduate-level course primarily offered for K-12 teachers of French.

FR 501: *SPECIAL TOPICS IN FRENCH LITERATURE AND CULTURE* **3 s.h.**
 In-depth examination of contemporary French and Francophone literary and cultural issues. May be taken up to three times for credit, provided that different topics are offered. Course taught in French.

FR 551: *ADVANCED SUPERVISED READINGS IN FRENCH LITERATURE* **3 s.h.**
 Selected readings determined by the needs and interests of the individual student.

FR 557: *ADVANCED FRENCH LINGUISTIC AND CULTURAL IMMERSION* **3 s.h.**
 Two weeks of intensive onloine instruction on French culture and civilization, prior to a two-week trip to France. During this "immersion" period, students will visit places of historical and cultural interest in the country, receive lectures on the historical, cultural, artistic, and literary importance of the sites visited, and conduct as much of their daily routines in French as possible. Course offered to graduate students.

GER 501: *SPECIAL TOPICS IN GERMAN LITERATURE AND CULTURE* **3 s.h.**
 In-depth examination of contemporary German literary and cultural issues. May be taken up to three times for credit, provided that different topics are offered. Course taught in German.

GER 551: *ADVANCED SUPERVISED READINGS IN GERMAN LITERATURE* **3 s.h.**
 Selected readings determined by the needs and interests of the individual student.

GER 557: *ADVANCED GERMAN LINGUISTIC AND CULTURAL IMMERSION* **3 s.h.**
 Two weeks of intensive online instruction on German culture and civilization, prior to a two-week trip to a German-speaking country. During this "immersion" period, students will visit places of historical and cultural interest in the country, receive lectures on the historical, cultural, artistic, and literary importance of the sites visited, and conduct as much of their daily routines in German as possible. Course offered to graduate students and undergraduates.

SPAN 417: *SPANISH LANGUAGE AND CULTURAL IMMERSION* **3 s.h.**
 Consists of a trip to a Spanish-speaking country for two to five weeks depending on the itinerary planned by the instructor prior to departure (no matter what the length, however, it will consist of the usual number of semester hours). During this period, students will visit places of historical and cultural interest in the country, receive lectures on the historical, cultural, artistic, or literary importance of the sites visited, and conduct as much of their daily routines in Spanish as possible. Course offered to graduate students and undergraduates.

SPAN 501: *SPECIAL TOPICS IN HISPANIC LANGUAGE AND CULTURE* **3 s.h.**
 In-depth examination of contemporary Hispanic literature and cultural issues including but not limited to such topics as Hispanic women writers, Latino cultures in the United States, and relationships between Hispanic nations and the United States. Course is taught in Spanish. Student may enroll up to three times for a maximum of nine credits.

SPAN 540: *HISPANIC FILM* **3 s.h.**
 Examines major Spanish and Latin American films. The course offers a special and important perspective to approach the contemporary history and culture of Hispanic countries. Students are encouraged to develop an awareness of differences between Hispanic and Anglo-American cultures. Course is taught in Spanish.

SPAN 561: *SUPERVISED READINGS IN HISPANIC LITERATURE* **3 s.h.**
 Selected readings determined by the needs and interests of the individual student.

MASTER OF ARTS DEGREE IN ENGLISH

College of Arts and Sciences

Department of English

Janet Knepper, Ph.D., Graduate Program Director

108C Davis Hall

Telephone: 814-393-2155

E-mail: gradenglish@clarion.edu

www.clarion.edu/english

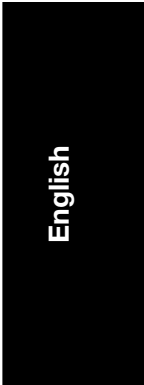
Graduate Faculty

Professors: D. Fink, . Leary, H. Luthin, E. MacDaniel, D. Sheraw, K. Stemmler, P. Terman, G. Xu

Associate Professors: J. Bodziock, E. Foster, C. McCarrick, K. Smith, R. Lane

Assistant Professors: M. Downes, J. Knepper, U. Pack, B. Roberts, D. Sarbin, J. Smart

Master of Arts in English Program is in moratorium until Fall 2010. For information, please contact Dr. Janet Knepper, Graduate Program Director.





MASTER OF SCIENCE DEGREE IN LIBRARY SCIENCE

College of Education and Human Services

Department of Library Science

A. Miller, Ph.D., Chair
209 Carlson Library
Telephone: 866-272-5612
E-mail: amiller@clarion.edu
www/clarion.edu/libsci

Graduate Faculty

Professors: W. Buchanan, M. Harhai, A. Miller
Associate Professors: L. Lillard, J. Maccaferri, E. Reid
Assistant Professor: I. Doku, K. Cook, M. Gnuessan,
J. Jeng, J. Krueger

Mission

The mission of the Department of Library Science of Clarion University is to educate individuals for careers in a diverse information society.

Goals

To achieve its mission, the department will:

- I. *Education*
Teach students the major theories, principles, and current and emerging practices in the field
- II. *Leadership and Service*
Instill in students the qualities, knowledge, skills, and passion inherent in effective leaders

III. *Research*

Teach students to understand, design, conduct, and disseminate research in the library professions and related disciplines

IV. *Professional Development*

Provide opportunities for lifelong learning

Graduate Program Objectives

The graduate program in library science provides professional study encompassing principles and techniques common to all types of libraries and information centers with the opportunity for advanced work in areas of special interest. The curriculum reflects today's applications of information technology in libraries and information centers.

The master's program at Clarion University was initiated in 1967 and has the distinction of being the first graduate library science program offered within the Pennsylvania State System of Higher Education. The program has been accredited by the American Library Association since 1976.

M.S.L.S. Admission Requirements

ELIGIBILITY

Applicants for admission to the Master of Science in Library Science degree program must meet Division of Graduate Studies admission requirements with the following additions:

M.S.L.S.

1. an overall QPA for the baccalaureate degree of at least 3.00 on a 4.00 scale; or
2. a 3.00 QPA for the last 60 credits of the baccalaureate degree with an overall quality-point average of at least 2.75; or
3. a 2.75 to 2.99 overall QPA for the baccalaureate degree with a score of at least 412 on the Miller Analogies Test or a combined score of at least 1,000 on the quantitative and verbal sections of the Graduate Record Examination; or
4. a graduate degree in another discipline with an overall QPA of at least 3.00.

International students are required to achieve a minimum score of 550 on the TOEFL.

M.S.L.S. with Pennsylvania Library Science Certification

In addition to the above, students earning their initial M.S.L.S. certification with Pennsylvania Library Science Certification program *must* meet the following additional requirements:

1. completion of at least six credits of college-level mathematics and
2. completion of at least six credits of college-level English composition and literature.

Applicants without valid teacher certification must also pass the Praxis I pre-professional skills tests. State

law limits the number of applicants with an overall QPA for the baccalaureate degree of less than 3.00 on a 4.00 scale who can be admitted to the School Library Media Certification program.

PROCEDURE

Students may begin their studies any semester however to complete the program in one year requires Fall Semester start. All students must enroll in LS 504, as close as possible to the start of their program as the department's course schedule permits. For most students this will be in their first term of study.

Transfer of Credits/Waiver of Courses

A maximum of six graduate semester hours may be transferred and/or waived in any of the following ways:

- Acceptable graduate credits in library science completed at Clarion University as a non-degree student or at another institution with an ALA-accredited program may be transferred and applied toward the master's degree. The student is responsible for filing an official graduate transcript of any work presented for transfer credit with the chair of the Department of Library Science.
- Graduate credit in related disciplines may be transferred upon prior approval by advisor and chair.
- Students who have had library experience duplicating the subject matter covered in required courses may be permitted to take a qualifying examination to determine whether he or she might waive the course(s) and substitute elective courses. Qualifying examinations may be waived at the chair's discretion.

Degree Requirements

The degree of Master of Science in Library Science is conferred upon the candidate who has met the following requirements:

- The completion of 36 hours of approved graduate study, including five required core courses (LS 500, 501, 502, 504, and 550), one management course (LS 532 or 534), and six elective courses.
- The maintenance of a cumulative average of 3.00 or higher. A student who receives a grade of "C" or lower in two or more courses is disqualified as a candidate in the degree program unless special permission to continue is obtained from the dean of the College of Education and Human Services and the coordinator of Graduate Studies.
- The completion of all degree requirements within a six-year period. Course work over six years old may not be applied toward the degree.

Master of Science in Library Science with Pennsylvania Library Science K-12 Certification

A student wishing to obtain Pennsylvania Library Science Certification, K-12, must hold a valid teaching certificate (or meet the requirements for preliminary certification by taking required undergraduate courses); complete 36 semester hours of an approved curriculum in library science. Students without prior certification will take 12 semester hours of student teaching; students with emergency Pennsylvania Library Science Certification may petition the department to substitute a portfolio for the internship requirement.

Required courses for the Master of Science in Library Science degree with Pennsylvania Library Science Certification, K-12, include: LS 500, 501, 502, 504, 532, 550, 577, 583, 589, and two elective courses.

Master of Science in Library Science/Juris Doctor Program

The department offers a joint M.S.L.S./J.D. program in cooperation with Widener University School of Law's Harrisburg, Pa., campus. Students must be admitted to both programs separately. Any six credits of coursework taken as part of a student's J.D. program may be applied to that student's M.S.L.S. program, and vice versa. These courses will be chosen in consultation with the student's faculty advisors.

Continuing Education

Certificate of Advanced Studies

The Certificate of Advanced Studies program is designed to provide the post-master's student an opportunity to expand and update professional skills and competencies through a structured pattern of continuing education. Study may be either full- or part-time. On a full-time basis, the certificate may be completed in two semesters. Requirements include a written statement of personal/professional goals, completion of a program of 15 graduate credits within a four-year period, and maintenance of a 3.00 QPA.

Documentation required for admission includes a goals statement, an official transcript from the school that granted the master's degree in library science, completed university application for admission form and recommendation forms, and the application fee. Further information is available from the Graduate Studies office.

Non-Degree Status

Individuals not interested in a formal degree or certificate program may enroll in courses as a non-degree student; however, no more than six credits of work completed as a non-degree student may later be transferred to a degree or certificate program. Students must have

a baccalaureate degree from a regionally accredited institution, submit a completed application form and official transcripts, and pay the application fee. Further information is available from the Graduate Studies office.

Distance Education

As part of its commitment to meeting the needs of all residents of the commonwealth of Pennsylvania, the Department of Library Science offers a variety of distance education programs. These programs utilize various delivery techniques, including on-site instruction and Web-based delivery. The department offers multiple cohort programs that begin each January and a more general format available each semester. The specific focus cohorts (i.e., urban libraries) are available on a rotating basis. Cohort members move throughout the program sequence as a support group focused on a specific aspect of library science. Another option, for approved students, is the individualized course of study. This selection consists of the M.S.L.S. graduate core classes and then a cohesive course of study tailored to the individual student and approved by a faculty member who will mentor the student's study. See www.clarion.edu/libsci for the admission cohorts being offered.

Once admitted to graduate study at Clarion University, students may enroll in any of the distance education courses offered by the department. These courses may be taken as part of a master's or Certificate of Advanced Studies program, or individually for continuing education purposes.

The following distance education programs are currently available:

- Dixon University Center, Harrisburg, Pa.
- Philadelphia area
- Web-based courses

Graduate Assistantships and Scholarships

The Department of Library Science has available a number of assistantships for both entering and continuing students. Continuing students may compete for several department scholarships. For more information concerning assistantships, refer to the general information section of this catalog. Graduate students are eligible for the following department scholarships:

- The Ahmad F.M. Gamaluddin Scholarship in Library Science
- The Charles R. Flack Scholarship in Library Science
- The Elizabeth A. Rupert Graduate Scholarship in Library Science
- The H. W. Wilson Scholarship

Scholarship application deadlines are announced on the department's calendar. Applications for graduate assistantships are included in the packet of information sent to all prospective students.

Additional information on financial aid may be obtained from the booklet, *Financial Assistance for Library and Information Studies*, published by the American Library Association Committee on Education.

Advisement

Students are assigned a faculty advisor upon admission to the program. Students must discuss course scheduling with their advisor to register for classes each semester. At any time, a student may select a different advisor having greater expertise and experience in the student's area of interest. In addition to assisting students in developing a program of study, faculty advisors work with students to develop career objectives, prepare resumes, and plan a job search.

Internship

LS 570, INTERNSHIP IN LIBRARIANSHIP, enables a student to anticipate the librarian's professional role and to gain related experience. The major purpose of this course is to familiarize the student with practical problems in the field by providing laboratory experience in the professional atmosphere of a cooperating library or information center. For more information, contact the department.

Resources and Facilities

The Department of Library Science is located on the second floor of Carlson Library. The department offices, classrooms, and laboratories accommodate a variety of activities for students and faculty within a compact area. The library science classroom features ITV equipment and networks. Students have ready access to a variety of Web-based resources.

Current Studies in Librarianship

Current Studies in Librarianship is a forum for research by library science students on subjects of general interest to librarians. It is published jointly by the Department of Library Science and the Division of Graduate Studies under the co-editorship of Dr. James T. Maccaferri and Patricia Newland. *Current Studies in Librarianship* is indexed by *Library and Information Science Abstracts* (LISA) and *Library Literature & Information Science*.

Beta Phi Mu International Library Science Honor Society

Beta Phi Mu was founded in August 1948 at the University of Illinois by a group of leading librarians and library educators. The motto of the society is "Aliis Inserviendo Consumor," which reflects the dedication librarians must possess toward service to others if books are to become instruments of liberal education.

Beta Phi Mu approved a chapter at Clarion in August 1978. The chapter, Beta Sigma, was installed and the first members were initiated in Spring 1980. Membership in this international society is granted to a graduate of a library school program accredited by the American

Library Association who has earned a 3.75 scholastic average on a 4.00 scale and has been recommended by the library school faculty. The faculty recommendation attests to the candidate's professional competence and promise. At present, the local chapter is permitted to grant membership to only 25 percent of the graduating class each year.

Opportunities for Service

AMERICAN LIBRARY ASSOCIATION STUDENT CHAPTER

The American Library Association Student Chapter was established in 1992 and formally recognized by the Student Senate in 1993. It provides both undergraduate and graduate students with opportunities for professional education and service beyond those provided by course work. Chapter activities include round table discussions, field trips, participation in community projects, and sponsorship of colloquium speakers.

SPECIAL LIBRARIES ASSOCIATION STUDENT CHAPTER

The Special Libraries Association Student Chapter was established in 1996 and officially recognized by the association in the same year. Special libraries and information centers are found in businesses, government agencies, museums, hospitals, and professional associations. The student chapter offers students opportunities to learn more about special librarianship by visiting special libraries, by sponsoring speakers, and by participating in service projects in local libraries.

DEPARTMENT GOVERNANCE

Students are encouraged to participate in developing and evaluating department policies and procedures through membership on department and university committees.

Career Outlook

Prospects for the future are extremely positive for well-prepared new graduates guided by creative faculty advisors. Employment opportunities vary according to the type of library, educational qualifications, and the areas of specialization of the individual preparing to enter the profession. The librarian who is flexible with respect to geographic area and willing to meet the challenge of serving special groups will have especially good opportunities for employment.

Placement Service

Clarion University of Pennsylvania and the Department of Library Science assist both students and alumni in obtaining positions in libraries and related agencies by acting as a clearinghouse for current job information and by posting vacancy announcements. The student must request official academic transcripts from the university registrar. The Department of Library Science publishes a comprehensive position listing on the department Webpage.

The Office of Career Services provides assistance to all graduates by maintaining a file of vacancy notices received from public schools, government agencies, business, and

industry. It also provides assistance in preparing resumes and in developing interview and communication skills.

Library Science Courses

- LS 500:** *INFORMATION SOURCES AND SERVICES* **3 s.h.**
Philosophy and techniques of information services in libraries, with the sources, tools, and technology essential to the reference process. Specific reference problems and research studies, the reference interview, bibliographic instruction, and search strategies are considered. Recommended as an elective for nonlibrary science students in other graduate programs.
- LS 501:** *DEVELOPING LIBRARY COLLECTIONS* **3 s.h.**
Acquiring familiarity with basic bibliographical tools, current reviewing media, and acquisitions procedures. Establishment of policies and criteria for the selection and evaluation of book and nonbook materials.
- LS 502:** *CATALOGING AND CLASSIFICATION* **3 s.h.**
Introduction to the principles and techniques of organizing information with special reference to contemporary library practice. Students are introduced to descriptive cataloging using *Anglo-American Cataloguing Rules*, alphabetical indexing using *Library of Congress Subject Headings* and *Sears List of Subject Headings*, and systematic indexing using the Dewey Decimal Classification and the Library of Congress Classification. The structure and use of manual and automated catalogs and indexes are considered.
- LS 504:** *INTRODUCTION TO THE INFORMATION PROFESSIONS* **3 s.h.**
This course introduces students to the nature of information and its role in society, the philosophical, ethical, and historical foundations of the information professions, major professional organizations, and the legal, political, and social issues confronting today's information professionals. The identification and use of print and electronic information resources pertinent to library and information science are also covered.
- LS 529** *INSTRUCTIONAL STRATEGIES FOR LIBRARIANS AND INFORMATION PROFESSIONALS* **3 s.h.**
Prepares students with various approaches for integrating information literacy and resources into instruction in libraries and information centers; examines information literacy standards and guidelines, such as those from AASL and ACRL, for application in all types of libraries and centers; reviews various instructional strategies, techniques, and resources, such as Web-based tutorials and thematic Web pages, for implementation in programs
- LS 530:** *MANAGEMENT OF ACADEMIC LIBRARIES* **3 s.h.**
Introduction to managerial and administrative principles as applied in academic libraries; the role of the academic library in higher education and scholarly communication; current issues in academic librarianship. Pre- or corequisite: LS 504.
- LS 531:** *MANAGEMENT OF PUBLIC LIBRARIES* **3 s.h.**
Introduction to managerial and administrative principles as applied in public libraries; the role of the public library current issues in public librarianship. Pre- or corequisite: LS 504.
- LS 532:** *MANAGEMENT OF SCHOOL LIBRARY MEDIA CENTERS* **3 s.h.**
Introduction to managerial and administrative principles as applied in school library media centers; the role of the library media center in the school's educational mission; current issues in school media librarianship. Pre- or corequisite: LS 504.
- LS 534** *ADMINISTRATION AND MANAGEMENT OF LIBRARIES* **3 s.h.**
A study of managerial principles as they apply to libraries. Topics include, but are not limited to, planning, organizing, influencing and controlling the human, financial, physical and informational resources of libraries. Emphasis is placed on monitoring new trends in library facilities with regard to library functions. Prerequisite: LS 504
- LS 537** *SCHOLARLY AND PROFESSIONAL PUBLISHING* **3 s.h.**
This course will center on the topic of scholarly and professional communication and publishing. It involves the study of the traditional nature for communicating research and information and examines the recent trends concerning this practice. Different ways for the dissemination of research and information and open access initiatives by publishers, university presses, and scholarly and professional organizations will be examined. The library's role in fostering this process is emphasized.
- LS 540:** *MULTICULTURAL SOURCES AND SERVICES FOR EDUCATORS AND LIBRARIANS* **3 s.h.**
This course provides an opportunity for students to explore, understand, and develop library and educational resources and services for multicultural, diverse, and other special populations. Resources and services are examined particularly as they relate to ethnicity, race, gender preference, and disability. Students will develop a sensitivity to the learning and informational needs of various cultural and ethnic groups and will develop techniques for selecting and using materials relevant to a multicultural society.
- LS 550:** *INTRODUCTION TO RESEARCH IN LIBRARY SCIENCE* **3 s.h.**
Study of the scientific methods of planning, conducting, and reporting investigation and research in library science, including specific problems in library service. Critical analysis of research in professional literature. Designed to develop skill in interpreting research results.

- LS 552:** *ADVANCED CATALOGING AND CLASSIFICATION* **3 s.h.**
 In-depth exploration of the issues involved in organizing collections with special reference to authority control, the cataloging and classification of nonbook materials (including electronic resources), and the use of *Library of Congress Subject Headings* and the Library of Congress Classification. Prerequisite: LS 502.
- LS 555:** *HISTORY OF CHILDREN'S LITERATURE* **3 s.h.**
 Survey of the history and development of children's literature from the Anglo-Saxon period in England through the 19th century. Biennially.
- LS 556:** *BIBLIOGRAPHY OF THE SCIENCES* **3 s.h.**
 Survey of the literature and practice of librarianship in major areas of the sciences, including biology, chemistry, engineering, geology, mathematics, medicine, and physics. Prerequisite: LS 500.
- LS 557:** *BIBLIOGRAPHY OF THE SOCIAL SCIENCES* **3 s.h.**
 Survey of the literature and practice of librarianship in major areas of the social sciences, including anthropology, business, economics, education, geography, history, political science, and psychology. Prerequisite: LS 500.
- LS 558:** *BIBLIOGRAPHY OF THE HUMANITIES* **3 s.h.**
 Survey of the literature and practice of librarianship in the humanities, including art, literature, music, philosophy, and religion. Prerequisite: LS 500.
- LS 562:** *GOVERNMENT DOCUMENTS* **3 s.h.**
 Study and evaluation of selected federal, state, and municipal documents, foreign government publications, and the United Nations. The nature of documents, their reference and research value; the techniques of acquisition, organization, and bibliographic control; on-line commercial and government data bases. Prerequisite: LS 500.
- LS 568:** *HISTORY OF BOOKS AND PRINTING* **3 s.h.**
 Study of the evolution of the printed book through a survey of the origin of recorded communication; history of writing materials; study of manuscript production, typography, type design, illustration, bookbinding, book production, and copyright from the earliest times to the present.
- LS 569:** *MANAGEMENT OF TECHNICAL ACCESS SERVICES* **3 s.h.**
 Introduction to managerial and administrative principles as applied in library technical and access services. Areas covered include acquisitions, cataloging, serials control, circulation, document delivery, interlibrary loan, and preservation. Special attention is paid to automation issues. Pre- or corequisites: LS 502, 504.
- LS 570:** *INTERNSHIP IN LIBRARIANSHIP* **3 or 6 s.h.**
 Provides an advanced preprofessional experience in the atmosphere of a cooperating library or information center in which the student is able to apply and evaluate the theory and practice learned in the classroom. Students participate in seminar meetings, prepare an evaluative paper, and are observed and evaluated by both the site supervisor and the internship coordinator. Prerequisites: four core and four elective courses pertinent to the internship, permission of the student's advisor, the internship coordinator, and the department chair.
- LS 572** *LAW IN LIBRARIES*
 Addresses the legal and ethical concepts and issues related to librarianship. Topics include employment law, intellectual property, civil rights, social responsibility, intellectual freedom, and privacy law particularly as they relate to libraries. Ethics, values and foundational principles of the library and information professions are covered. Prerequisite: LS 504
- LS 573** *INTEGRATED TECHNOLOGIES IN LIBRARIES* **3 s.h.**
 A survey of integrated technologies for libraries examined through case studies, product reviews, and library marketplace reports; topics included, but not limited to, are the interface design of the OPAC, enhanced searching applications, technical services modules, electronic resource management systems, OpenURL and federated searching applications, and overall requirements for public access and use of integrated systems. Web-based information retrieval is explored and discussed. A variety of search engines, strategies, and protocols are examined and compared. Prerequisite: LS 504
- LS 574:** *DATABASE SEARCHING* **3 s.h.**
 General introduction to interactive database searching, including database producers, search system vendors, management of search services, search strategy, Boolean searching, structure and indexing of computer stored files. The course includes historical and background information. Greatest emphasis is on becoming a proficient searcher. Prerequisite: LS 504.
- LS 575** *DIGITAL LIBRARIES* **3s.h.**
 A seminar approach is used to provide an overview of topics concerning digital libraries, including, but not limited to, organization and structure, programming interoperability and metadata standards, project management, intellectual property rights, and various interface applications. Students are expected to examine topics of interest concerning digital libraries, culminating in the preparation of a term project. Prerequisite: LS 504
- LS 576:** *SPECIAL TOPIC IN LIBRARIANSHIP* **3 s.h.**
 In-depth discussion, study, and research of a topic related to the role of the library in responding to social issues, service to special groups, or problem areas. The following represent typical offerings: (1) Bibliotherapy; (2) Microcomputers in Libraries; (3) Library Services for the Gifted; (4) Media and Minorities; (5) Oral History; (6) Connectivity: Understanding the Information Infrastructure. A maximum of six credit hours may be applied toward graduation.

- LS 577:** *LIBRARIES, LITERATURE, AND THE CHILD* **3 s.h.**
 Opportunity for graduate students to investigate (1) the nature of children's literature; (2) the utilization of children's literature in school, public and special library settings; (3) trends in children's literature as a part of the total body of literature and as an educational force; and (4) current research in the field. Biennially.
- LS 578:** *THE RURAL PUBLIC LIBRARY IN AN URBAN ENVIRONMENT* **3 s.h.**
 Introduction to the public library in the United States, with special concern for the small rural library. Particular emphasis on the problems and limitations of such libraries and approaches for overcoming them.
- LS 579:** *ISSUES IN URBAN LIBRARIANSHIP* **3 s.h.**
 A survey of issues facing all types of libraries located in urban settings. School, public, and academic libraries will be discussed in the context of how the urban environment presents special challenges in designing, implementing, and managing library services. Prerequisite: LS 504.
- LS 580:** *LIBRARY MARKETING AND THE COMMUNITY* **3 s.h.**
 Addresses the following aspects of successful community analysis and marketing of library services: the current and potential library users; their specific informational needs; and how the library can provide adequate service.
- LS 581:** *ISSUES IN RURAL LIBRARY SERVICES* **3 s.h.**
 Problem-analysis approach to providing services to rural populations by school, public, academic, and other libraries. Examines networking, technology, funding, governmental regulations, etc., as they relate to rural library services. Prerequisite: LS 550.
- LS 582:** *SERIALS* **3 s.h.**
 Organization and management of serial publications: includes the format, selection, bibliographic control (manual and mechanized), and preservation techniques; the selection of jobbers and the services they offer. Prerequisites: LS 501, 502.
- LS 583:** *LIBRARIES, LITERATURE, AND YOUNG ADULTS* **3 s.h.**
 Examination of the role of the librarian in the selection, evaluation, and use of materials for junior and senior high school age persons. Includes a study of young adult literature and trends affecting its development; techniques for providing reader advisory services; methods of reaching and serving multicultural and special needs audiences; characteristics of the young adult in contemporary society; and development of programs and other means of introducing young adults to books and nonbook media, with special attention to emerging electronic products and services.
- LS 587:** *INDEXING AND ABSTRACTING* **3 s.h.**
 In-depth survey and hands-on development of documents surrogates, including annotations, abstracts, precis, and other forms of indexing.
- LS 588:** *PRESERVATION AND CONSERVATION OF LIBRARY MATERIALS* **3 s.h.**
 Survey of preservation and conservation activities in libraries and information centers, including disaster planning, environmental factors, treatment of brittle books, library binding, special problems of nonbook materials, and basic conservation treatments. Pre- or corequisites: LS 501 or permission of instructor.
- LS 589:** *NEW TECHNOLOGY FOR EDUCATORS* **3 s.h.**
 Studies the use of new and emerging technology in educational settings, including developing technology planning documents, developing requests for proposals, selecting and evaluating educational computing hard and software, and utilizing this technology for instructional purposes.
- LS 590** *GLOBAL PERSPECTIVES IN LIBRARIANSHIP* **3 s.h.**
 A study of libraries and librarianship throughout the world with an in depth focus in selected countries; emphasis is placed on library education and issues related to culture, technological advances, economics, and politics; the role and impact of professional organizations on libraries and library education worldwide is examined.
- LS 591:** *BUSINESS REFERENCES SOURCES AND SERVICES* **3 s.h.**
 Surveys the information sources and services typically found in corporate libraries, public library business information centers, and other specialized libraries with a business clientele. Includes in-depth examination of major business reference tools, as well as in-depth examination of the special operations, organization, and management of business libraries and departments of business information. Prerequisite: LS 500.
- LS 600:** *INDEPENDENT STUDY/SEMINAR* **3 s.h.**
 An opportunity for the advanced graduate student to investigate in depth a facet of librarianship and to prepare a scholarly paper or project to report his or her findings. The topic for study must be approved by a faculty committee, and the work must be supervised by a faculty member. Prerequisites: Four core and four elective courses pertinent to the independent study, permission of the student's advisor and the department chair. On demand.



ONLINE MASTER OF SCIENCE DEGREE IN MASS MEDIA ARTS AND JOURNALISM

College of Arts and Sciences Department of Communication

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Graduate Faculty

Professors: M. Kuehn, S. Kuehn
Associate Professors: S. Hilton, A. Lingwall, J. Washington,
H. J. Yang
Assistant Professors: M. Torres, R. Nulph

Program Objectives

In the 21st century, an advanced degree is a prerequisite for the best jobs in the communications marketplace. The Online Master of Science in Mass Media Arts and Journalism at Clarion University will enhance your intellectual and practical skills, and boost your marketability in this fast-growing career field.

Offered through Clarion University's Virtual Campus, this 36-credit program is designed for individuals pursuing careers in public relations, corporate communication, media management, journalism, and other mass media-related fields. It also provides a solid foundation for graduates seeking to enter doctoral programs.

Through the Online Master of Science in Mass Media Arts and Journalism program, you can earn your graduate degree in approximately two years. The program is intended for busy adults who cannot travel to campus due to distance, job commitments, or family responsibilities.

Admission Requirements

Graduate Studies admission requirements apply with the following additions:

- Applicants for full admission must have earned an overall QPA for the baccalaureate degree of at least 3.0 on a 4.0 scale.
- Admission on a provisional basis may be granted if the applicant's QPA is at least 2.75 on a 4.0 scale and a raw score of 45 or above is achieved on the Miller Analogies Test or a combined GRE (Graduate Record Examination) score of 1,000. Degree status may be obtained upon completion of 12 semester hours with a minimum of 3.0 average.
- All applicants must submit a statement of purpose.
- All applicants must have access to a computer with reliable Internet capability.
- *For non-native applicants:* submit TOEFL scores of 600 or above.
- Individuals with disabilities are encouraged to meet with the department chair before admission to the program.

Degree Requirements

To fulfill the degree requirements for graduation, students must complete 36 semester hours, including required courses, with a QPA of 3.0 or better on a 4.0 scale. Passing grade is "C" or above. There is also a media writing competency for which MMAJ 140: Writing for Media may be required if sufficient background is not obtained through previous course work or experiences as demonstrated through portfolio or testing. This decision will be made in consultation with your advisor.

Transfer Credits

A maximum of nine semester hours of graduate course work may be transferred toward the degree. These hours must come from an accredited institution and must have a grade of "B" or better.

Requirements for Graduation

The following courses are required of all students graduating with a Master of Science in Mass Media Arts and Journalism degree.

MMAJ 525: MASS COMMUNICATION THEORY	3 s.h.
MMAJ 548: MEDIA STRATEGIES FOR DISTANCE COMMUNICATION	3 s.h.
MMAJ 551: PUBLIC RELATIONS FOUNDATIONS	3 s.h.
MMAJ 558: SOCIETY, LAW, AND MEDIA TECHNOLOGY	3 s.h.
MMAJ 559: MANAGEMENT OF THE COMMUNICATION PROCESS	3 s.h.
MMAJ 621: MASS COMMUNICATION RESEARCH	3 s.h.

MMAJ 641: PROFESSIONAL COMMUNICATION WRITING.....	3 s.h.
or MMAJ 642: ADVANCED PUBLIC RELATIONS WRITING	3 s.h.

Choose one:

MMAJ OR CMST 500/600 LEVEL COURSE IN FOCUSED AREA OF INTEREST	3 s.h.
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Choose one:

MMAJ 700: THESIS (by permission of graduate faculty).....	6 s.h.
No comprehensive exam required.	
MMAJ 701: COMMUNICATION INTERNSHIP	6 s.h.
No comprehensive exam required.	
MMAJ 702: COMMUNICATION PORTFOLIO	6 s.h.
No comprehensive exam is required.	
ELECTIVES	6 s.h.
TOTAL	36 s.h.

Students must file for candidacy at the end of their second semester, specifying a three-member committee and an elective course schedule. At least two of the three members of the committee should be faculty from the Department of Communication. Committee members must have graduate faculty status.

Electives

Select from among 400/600 level MMAJ or CMST graduate courses; only one 400-level course may be taken. Please note that 400-level courses taken for undergraduate credit cannot be repeated for graduate credit.

Placement

Placement of past graduates has been excellent in business, industry, public relations, broadcasting, corporate communication, education, training and development, and doctoral and specialist programs.

Advisement

Students are assigned an advisor upon entering the program and may change advisors as they develop their area of interest if so inclined. It is the student's responsibility to make arrangements to meet with their advisor. *In all cases, the responsibility of meeting the stated requirements of the master's degree lies with the student.*

Graduate Assistantships

Graduate assistants are employed in the Department of Communication in such areas as broadcasting, multimedia production, journalism, and departmental program management.

These assistantships usually require 10 or 20 hours of work per week, for which partial or full tuition is waived and a small bi-weekly stipend is paid. Assistantships run from September to May; no student may be employed in more than one assistantship. *Awards are made as vacancies exist, and are based on the applicant's professional qualifications as shown in transcripts, resume, and portfolio of work samples. A personal interview is desirable.*

Applicants for graduate assistantships must complete the regular admission procedure, then file a letter of application with the chair of the Department of Communication. Applications for graduate assistant positions should be received no later than May 1.

Physical Facilities

The Department of Communication is housed in Marwick-Boyd Fine Arts Building and Becker Hall and offers

outstanding physical facilities. In addition to modern classrooms, students have access to:

- Digital video post-production lab
- Publication design studio
- Multimedia studio
- Music production studio
- Non-linear video editing suite
- Modern television studio
- 1000-watt FM radio broadcasting station
- Digital audio production suite



The Graduate Online Certificate in Public Relations

The graduate certificate in public relations is a 15-credit, online graduate-level program designed primarily for public relations professionals, business owners, nonprofit managers, and others who have earned bachelor's degrees. It is intended for those who need to update their skills or gain formal training in this fast-growing profession. Students who complete this program will be qualified to work as public relations assistants, managers, and executives. Coursework covers public relations theory, media relations, writing, cases and

campaigns, professional ethics and law, leadership, and related principles of advertising and marketing.

Admission Requirements

Individuals seeking admission to the online certificate in public relations program must meet Graduate Studies admission requirements and:

- have earned an overall undergraduate QPA of 3.0 on a 4.0 scale.
- Admission on a provisional basis may be granted if the applicant's QPA is at least 2.75 on a 4.0 scale and a raw score of 45 or above is achieved on the Miller Analogies Test or a combined GRE (Graduate Record

Examination) score of 1,000. Degree status may be obtained upon completion of 12 semester hours with a minimum of 3.0 average.

- submit a statement of purpose.
- have access to a computer with reliable Internet capability.
- *For non-native applicants:* submit TOEFL scores of 600 or above.
- Individuals with disabilities are encouraged to meet with the department chair before admission to the program.

Requirements for Graduation

To fulfill the degree requirements for graduation, students must complete the following required courses with a QPA of 3.0 or better on a 4.0 scale. Passing grade is “C” or above.

MMAJ 551: PUBLIC RELATIONS FOUNDATIONS 3 s.h.
 MMAJ 573: PUBLIC RELATIONS ETHICS
 AND PROFESSIONAL RESPONSIBILITY 3 s.h.
 MMAJ 574: PUBLIC RELATIONS CASES AND CAMPAIGNS. . . 3 s.h.
 MMAJ 575: PRINCIPLES OF INTEGRATED COMMUNICATION . 3 s.h.
 MMAJ 642: ADVANCED PUBLIC RELATIONS WRITING 3 s.h.

Students may apply all 15 certificate credits toward the Master of Science in Mass Media Arts and Journalism degree.

A maximum of three credits from the 400-level courses listed below can be taken for graduate credit with permission from the graduate program coordinator. Any 400-level courses taken for undergraduate credit cannot be repeated for graduate credit.

Communication Studies Courses

CMST 602: *SEMINAR IN CONFLICT MANAGEMENT* **3 s.h.**

Designed to help students develop strong communication skills for reacting, interacting, and intervening in conflict situations. The course offers a summary and synthesis of research and theory on conflict that guides communication choices for effectively responding to conflict in any environment across personal relationships, small group interactions, management and labor, public administration, and education.

CMST 603: *ORGANIZATIONAL COMMUNICATION* **3 s.h.**

Helps students develop communication skills that enable them to become change masters in the organizations of which they are a part. Students will learn an analytical framework to identify key decision variables, and ways of behaving and communicating that allow people in organizations to make and implement good decisions fast. The course introduces students to issues such as the function of communication in organizational planning, strategy, and marketing; the role of communication issues in collaboration and negotiation; communication leadership; managing e-mail and written communication; risk communication; cross-cultural communication; and communication ethics. The course also introduces students to a range of qualitative and quantitative research methods for analyzing and assessing communication in organizations.

CMST 604: *COMMUNICATION IN INSTRUCTIONAL ENVIRONMENTS* **3 s.h.**

Communication in a variety of instructional contexts, with focuses on communication skills for instructors in business, professions, and education. Emphasis is placed on the literature, philosophies, and theories concerning instructional communication.

Mass Media Arts and Journalism Courses

MMAJ 426: *TELECOMMUNICATIONS POLICY* **3 s.h.**

Provides a foundation in the U.S. policymaking process in telecommunications (broadcasting, cable, telephone, and the Internet). Examines the impact of technology and social influences on policymaking and the theoretical perspectives that drive policymaking. Prerequisite: MMAJ 100.

MMAJ 427: *ETHNICITY, GENDER, AND THE MEDIA* **3 s.h.**

Investigates the role of ethnicity and gender in a variety of media. The course critically analyzes how the media has historically portrayed women and people of color, how they portray these groups today in a diverse, global media environment, and how these portrayals have influenced public opinion and public policy. The course also examines the historical and current role of women and minority communities in the media business. Prerequisite: MMAJ 100 or 101.

MMAJ 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. Prerequisite: MMAJ 140.

MMAJ 442: *Broadcast NEWSWRITING* **3 s.h.**

Provides students with advanced instruction and experience in writing and reporting news for radio and television. Topics include script types and formats, leads, writing for the eye and ear, interviewing techniques, feature writing, packages, readers and teasers, and investigative research and reporting techniques. Prerequisite: MMAJ 140.

- MMAJ 443:** *PUBLIC RELATIONS WRITING* **3 s.h.**
Provides students with advanced instruction and experience in writing for the public relations and advertising professions. Projects include news releases, media kits, advertisements, newsletters, brochures, and Web pages. Coursework also stresses ethical and legal responsibilities of the public relations writer, research, persuasion, and visual elements of communication. Prerequisite: MMAJ 100 or 101 and MMAJ 140.
- MMAJ 445:** *DIGITAL/FILM PRODUCING* **3 s.h.**
Explores all aspects of the role of the producer for film. The student will examine the business of film production, from the development of script proposals through final distribution. The student will become involved in all areas of script breakdown, storyboard development, planning, budgets, and legal aspects. Prerequisite: MMAJ 302.
- MMAJ 455:** *DIGITAL/FILM DIRECTING* **3 s.h.**
Provides students with hands-on experience as a single-camera director. Students will critique professional directors and examine directing theories and techniques and will apply theory and techniques of script breakdown, directing talent and blocking, camera placement, shot execution, and communication of the director's vision to crew and talent. Students will direct a narrative short or one-act screenplay. Prerequisite: MMAJ 351.
- MMAJ 476:** *SHORT FILM* **3 s.h.**
A film-production course in which students make up a crew and produce a feature-style film short. This capstone course in the film concentration applies previous coursework and experience to the creation of a major work and allows students the full expression of the concentration. Prerequisites: MMAJ 445, 455.
- MMAJ 524:** *CRITICAL ANALYSIS OF MASS MEDIA* **3 s.h.**
Focuses on critical frames of analysis applied to various mass media messages, such as film, recordings, television, and print media. Rhetorical, semiotic, ideological, and dramatisitic modes of analysis are applied in historical and current media contexts. Focus may be made on a specific medium.
- MMAJ 525:** *MASS COMMUNICATION THEORY* **3 s.h.**
Provides introduction and examination of the major theories relevant in the study of mass communication. Students understand the application and relevance of these theories in the industries, practices, and effects of the mass media.
- MMAJ/IED 540:** *PRINCIPLES OF INSTRUCTIONAL DESIGN IN EDUCATIONAL TECHNOLOGY* **3 s.h.**
Focuses on systematic procedures for designing, developing, evaluating and revising instruction to meet identified goals and objectives for promoting educational technology. Instructional design theories and applications are examined. The appropriateness and production of both projected and non-projected multimedia are explored in the production of instructional solutions for the targeted audience including the K-12 community and other training and development learning environments.
- MMAJ 548:** *MEDIA STRATEGIES FOR DISTANCE COMMUNICATION* **3 s.h.**
Explores the various media strategies used to deliver distance learning and other distance communications. Learners will examine the various modes of delivering information from printed correspondence to the newer media technologies. Media will be analyzed to determine the best delivery system for specific audiences and various communication goals.
- MMAJ 551:** *PUBLIC RELATIONS FOUNDATIONS* **3 s.h.**
Focuses on the roles and responsibilities of public relations professionals, theories and principles of public relations, and public relations programming. Students will work to develop knowledge, expertise, and skills that lead to professional competence in the field. As part of their study, students will also consider the legal and ethical dimensions of public relations, and develop a public relations writing portfolio.
- MMAJ 558:** *SOCIETY, LAW, AND MEDIA TECHNOLOGY* **3 s.h.**
Examines the social impact and regulation of media technology in society. The course explores the relationships between societal uses of media technology, the law that addresses media technology issues, and the role of media in larger communication and mass media systems.
- MMAJ 559:** *MANAGEMENT OF THE COMMUNICATION PROCESS* **3 s.h.**
Defines and applies the general principles of management—planning, organizing, staffing, directing, and controlling—to the design and administration of communication organizations and communication functions. The course relates behavioral variables to the understanding and motivation of employees.
- MMAJ 560:** *AUDIO AND TELEVISION PRODUCTION* **3 s.h.**
Develops basic skills in audio, ENG, and television production. A variety of projects in both media concentrates on proper equipment operation and recording and editing techniques.
- MMAJ 565:** *PHOTOGRAPHY AND GRAPHICS PRODUCTION* **3 s.h.**
Provides an integrated introduction into graphic and photographic production techniques. Layout, design, and composition techniques will be developed.
- MMAJ 572:** *DESIGNING WORLD WIDE WEB MEDIA* **3 s.h.**
Prepares students to design World Wide Web-based media. Students will learn to structure Websites, layout copy, use color and text effectively, position images, and deploy sound and video on pages as necessary.
- MMAJ 573:** *PUBLIC RELATIONS ETHICS AND PROFESSIONAL RESPONSIBILITY* **3 s.h.**
Addresses the ethical and moral dimensions of the public relations practice, and prepares students to understand the ethical responsibilities of the public relations professional. Through case studies, analysis of current events, and hands-on exercises, this course provides students with the knowledge and skills necessary to reach and justify ethical decisions in a range of situations. Throughout, students work to build a sense of personal and professional responsibility in public relations.

- MMAJ 574:** *PUBLIC RELATIONS CASES AND CAMPAIGNS* **3 s.h.**
Using public relations cases and campaigns as models, this course examines the development of public relations strategies along with the tactical communications and actions that were instituted to achieve organizational goals. Public relations programs directed toward employees, the news media, the community, the consumer, governmental officials and agencies, stockholders, and other relevant groups are included in the course.
- MMAJ 575:** *PRINCIPLES OF INTEGRATED COMMUNICATIONS* **3 s.h.**
Examines the theories and techniques of integrated communications, including public relations, advertising, marketing, sales promotions, and personal selling. It explores how all forms of communication work together to achieve organizational objectives and contribute to its overall "brand." In this course, students will also learn how to research and evaluate a company's marketing and promotional situation, and use this information to develop effective integrated communications strategies and programs.
- MMAJ 580:** *APPLIED DESIGN AND PRODUCTION* **3 s.h.**
Prepares students to design and produce multimedia programs for communication functions. Explores research concerning interactive multimedia as a delivery medium, and examines key elements of program design, pre-production, and evaluation.
- MMAJ 591:** *INDEPENDENT STUDY* **1-2 s.h.**
Allows the imaginative student 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 and approved by the student's advisor prior to enrolling in the course. One or two credit hours.
- MMAJ 621:** *MASS COMMUNICATION RESEARCH* **3 s.h.**
Examines research in mass communication and develops competencies in research methods. Topics include statistical analysis, experimental and survey research methods in communication, content analysis, and evaluation of mass media technology in communication.
- MMAJ 641:** *PROFESSIONAL COMMUNICATION WRITING* **3 s.h.**
Provides advanced instruction in communication writing for use in a range of media-related careers. Focuses on the methodology and execution of specific projects professionals are likely to encounter in the workplace including speeches, grants, visual presentations, and research reports. Prerequisites: MMAJ 525 and 551.
- MMAJ 642:** *ADVANCED PUBLIC RELATIONS WRITING* **3 s.h.**
Provides advanced instruction in writing for the public relations profession. Focuses on the methodology and execution of specific projects including news releases and media kits, crisis communication plans, backgrounders, annual reports, feature stories, speeches and presentations, and Websites. Stresses planning and research, message strategy, and ethical and legal responsibilities. Students will produce written pieces suitable for a professional portfolio.
- MMAJ/CIS 650:** *ADVANCED TECHNOLOGY APPLICATIONS* **3 s.h.**
Develops advanced skills to support instructional technology programs. Coursework will cover areas such as advanced microcomputer applications, Internet concepts as they apply to instructional technology, and PC operating system issues related to instructional technology. The focus will be on computers and related technologies used in educational and training environments.
- MMAJ/CIS 651:** *NETWORKING MEDIA TECHNOLOGY CENTERS* **3 s.h.**
Enables the student to install and configure computers and computer networks in educational/training settings. Emphasis will be placed on systems commonly found in K-12 schools. Software/hardware selection, installation, and maintenance will be covered as related to technology integration. The student will identify ethical and legal procedures as well as issues related to adaptive assistive hardware/software.
- MMAJ 692:** *SEMINAR IN COMMUNICATION EDUCATION AND MASS MEDIA TECHNOLOGY* **3 s.h.**
Focuses on critical examination of issues, research, and innovations in the field of communication education and mass media technology.
- MMAJ 700:** *THESIS* **6 s.h.**
Requires the student to conduct a research study in communication, using acceptable research methods and under the supervision of a faculty member and committee. Permission to enroll in the course is by invitation of the graduate faculty in the Department of Communication. The course is one of three options to complete the degree requirements in the graduate program. Prerequisite: MMAJ 621. Three or six credits a semester for an overall total of six credits.
- MMAJ 701:** *INTERNSHIP* **6 s.h.**
Provides practical experience in the supervision and operations of some aspect of a communication/instructional system program. A proposal specifying objectives, methods, and evaluation techniques must be submitted and approved by the student's advisor and the cooperating agency prior to enrolling in the course. The course is one of three options to complete degree requirements in the graduate program. Students may take three credits in two consecutive semesters or six credits in one semester. Prerequisite: MMAJ 621.
- MMAJ 702:** *PORTFOLIO* **6 s.h.**
Requires the student to prepare a portfolio of professional materials, including written documentation outlining the purpose and application of the materials. Students will produce professional-quality media products, such as video programs, multimedia programs, printed materials, audio programs, or Web-based products. The course is one of three options to complete the degree requirements in the graduate program. Prerequisite: MMAJ 621. Six credits (required/maximum); students can enroll for three credits in two consecutive semesters or six credits in one semester.



CLARION AND EDINBORO UNIVERSITIES MASTER OF SCIENCE DEGREE IN NURSING

Debbie Ciesielka, D.Ed., M.S.N., ANP-BC

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Associate Professors: D. Carlson (Edinboro), D. Ciesielka (Clarion), L. Reiser (Clarion)

Assistant Professors: A. McClune (Edinboro), C. Stiller (Edinboro)

Program Description

The Master of Science in Nursing program is sponsored jointly by Clarion and Edinboro Universities. There are two concentration areas: family nurse practitioner (FNP) and nurse educator (NE). The FNP concentration is 45 semester hours in length and includes 600 hours of clinical practice. FNP graduates are prepared to provide primary care in medically under-served areas in western Pennsylvania and are eligible to apply to the Pennsylvania State Board of Nursing for legal certification as certified registered nurse practitioners (CRNP) in family health after passing professional certification exams through either the American Nurses Credentialing Center (ANCC) or the American Academy of Nurse Practitioners (AANP).

The NE concentration is 36 semester hours in length and includes 135 hours of mentored teaching experience. NE graduates learn to design, implement, and evaluate instruction and are prepared to teach in diploma and

associate degree programs as well as to fill clinical education and staff development positions in hospitals and other health care institutions. NE graduates meet the educational requirements to sit for the National League for Nursing Certified Nurse Educator exam.

Courses for both program concentrations are delivered online with the exception of clinical practica and a limited number of skill labs and workshops. Graduates of the program receive a joint degree granted by both universities. Students may select one university site for advisement and may utilize facilities and services of both universities.

The MSN program is accredited by the National League for Nursing Accrediting Commission (NLNAC). Students should check the program Website for the most up-to-date program information: <http://web.clarion.edu/msn>. Information about program requirements and administrative matters is also available at both universities.

Program Objectives

The Master of Science in Nursing program affords advanced practice nurses the opportunity to develop as expert clinicians or nurse educators, participate in shaping health policy, and contribute to research that improves patient care or nursing education. The nursing program provides the foundation for a life-long process of personal and professional growth as well as for doctoral education. Specifically designed for the working professional, all didactic courses are taught online. Most students study on a part-time basis.

Program Outcomes

Graduates will:

1. Synthesize knowledge from nursing, the sciences, and humanities into advanced nursing practice.
2. Demonstrate critical thinking and diagnostic reasoning in decision-making activities.
3. Use theoretical knowledge and research findings as a foundation for advanced nursing practice.
4. Incorporate professional/legal standards and moral/ethical values into a culturally sensitive practice.
5. Apply nursing knowledge and related theories to nursing and health through nursing education and advanced clinical practice.
6. Build a professional system that includes interdisciplinary communication, collaboration, and teamwork.
7. Participate in legislative and policy-making endeavors that influence health care services and practices.
8. Contribute to nursing knowledge through advanced clinical practice and/or education and research.

Admission Requirements

The admission requirements for both M.S.N. concentrations are the following:

- Payment of the application fee.
- Evidence of an earned baccalaureate degree in nursing from an accredited program.
- Licensure as a registered nurse in the state where they plan to complete clinical practicum.
- An undergraduate QPA of 2.75 on a 4.0 scale or a graduate QPA of 3.0 on a 4.0 scale (if seeking second M.S.N. degree)
- One year of recent full-time clinical practice or two years of part-time clinical practice (2,000 hours)
- Evidence of completion of a college-level statistics course with a “C” or better.

Application Deadlines

Early admission deadline is November 1. All completed applications received by November 1 will be reviewed and considered for early admission into the M.S.N. program for the upcoming Fall term. Students meeting the criteria for early admission will be notified by December 15. Regular admission deadline is April 1. All completed applications received by April 1 will be reviewed and considered for regular admission into the M.S.N. program for the upcoming Fall term. Students meeting the criteria for admission will be notified by May 15. In addition to meeting the criteria for admission, students will be accepted on a “seat available” basis.

An applicant may be placed on a waiting list for the upcoming Fall admission or for the following Fall admission. All students will be notified by May 15 of their admission status. For detailed instructions and to request an application, please visit: www.clarion.edu/16475

Curriculum

The following core courses are required of all students graduating with a Master of Science in Nursing:

- * NURS 601: Advanced Concepts in Pathophysiology 3 s.h.
 - NURS 602: Pharmacologic Applications 3 s.h.
 - ** NURS 605: Evolution of Nursing Theory 3 s.h.
 - NURS 610: Advanced Concepts in Nursing Research 3 s.h.
 - *** NURS 614: Health Promotion: Family and Community Perspectives 3 s.h.
 - NURS 615: Advanced Health Assessment 2 s.h.
 - NURS 616: Advanced Health Assessment Practicum 1 s.h.
 - NURS 645: Nursing and Public Policy 3 s.h.
 - NURS 800: Scholarly Project/Thesis 3-6 s.h.
- * NURS 601 is a prerequisite to NURS 602 and is a prerequisite or co-requisite to NURS 615 and NURS 616.
 ** NURS 605 is a prerequisite to NURS 610.
 *** NURS 614 is a prerequisite to the clinical courses and is a prerequisite to NURS 620 and 621

Students in the family nurse practitioner concentration take the following additional courses:

NURS 620: Clinical Decision Making I	2 s.h.
NURS 621: Clinical Decision Making I Practicum..	1 s.h.
NURS 630: Clinical Decision Making II	3 s.h.
NURS 631: Clinical Decision Making II: Role Seminar	1 s.h.
NURS 632: Clinical Decision Making II Practicum	2 s.h.
NURS 640: Clinical Decision Making III	3 s.h.
NURS 641: Clinical Decision Making III: Role Seminar	1 s.h.
NURS 750: Family Nurse Practitioner Internship	3-6 s.h.

Students in the nurse educator concentration take the following additional courses:

NURS 675: Nursing Curriculum Development	3 s.h.
NURS 676: Educational Strategies in Nursing	3 s.h.

NURS 677: Evaluation and Assessment in Nursing..	3 s.h.
NURS 751: Nurse Educator Internship	3-6 s.h.

Degree Requirements

To fulfill degree requirements for graduation, the student must complete 45 semester hours of required course work for the family nurse practitioner concentration and 36 semester hours of required course work for the nurse educator concentration. The student must maintain a QPA of 3.0 or better on a 4.0 scale. Successful completion of a comprehensive assessment in the form of a professional portfolio is required. A scholarly project/thesis is also required for graduation. All degree requirements must be completed within six years of the first date of enrollment.

Nursing Courses

NURS 601: ADVANCED CONCEPTS IN PATHOPHYSIOLOGY 3 s.h.

The certified nurse practitioner must combine an understanding of the complexity of biochemical and anatomical alterations that culminate in disease, and the corrective mechanisms of a wide range of drugs and other therapies that will result in a best fit of diagnosis and treatment. Since patients afflicted with major diseases present with diverse signs and symptoms, the goal of the course will be to present diseases from a multi-system approach and then explore the logic of the current therapies known to cure or arrest the disease. Offered Fall annually.

NURS 602: PHARMACOLOGIC APPLICATIONS 3 s.h.

Covers principles of pharmacology as applied to advanced nursing practice. This includes drug effectiveness, mechanism and interaction. Emphasis will be on the pharmacological action of drugs on specific organ systems and the clinical use of drugs in treatment of disease conditions. Emphasis will be on critical decision-making skills in the selection of drug therapy, doses of drugs, routes of administration, and preferred therapy. This course focuses upon pharmacologic implications for the family nurse practitioner in working with individuals across the life span. Prerequisite: NURS 601. Offered Spring annually.

NURS 605: EVOLUTION OF NURSING THEORY 3 s.h.

Focuses on selected aspects of theory development in nursing science. Emphasis is given to the study of epistemological issues related to the evolution of theory in nursing. Varying levels and components of theories are explored. Major strategies for theory development including concept analysis, synthesis, and theory derivation are analyzed. Students gain experience in critically examining major existing theoretical models. Offered Fall annually.

NURS 610: ADVANCED CONCEPTS IN NURSING RESEARCH 3 s.h.

Examines the relationship and contribution of nursing research to the development of nursing science. The growth of research will be traced over the course of the last century, with particular emphasis on the evolution that has occurred since mid-century. Students will be assisted to increase their ability to critically evaluate published research and to make decisions concerning its application to practice. Additionally, students will develop a proposal for an individual or group research project that may become the foundational work for the scholarly project. Pre-requisite: NURS 605 or by permission of instructor. Offered Spring annually and as needed.

NURS 614: HEALTH PROMOTION: FAMILY & COMMUNITY PERSPECTIVES 3 s.h.

Introduces the advanced practice nurse student to health promotion and disease prevention strategies for families and communities. Students will explore principles of family theory, established models of family development, epidemiology, and demography. An opportunity will be given to develop intervention plans to improve wellness based risk assessment and knowledge of national standards of clinical preventive services. This course is a pre-requisite to all other clinical nursing courses in the nurse practitioner concentration. Offered Fall annually.

NURS 615: ADVANCED HEALTH ASSESSMENT 2 s.h.

This course builds upon the basic assessment skills of the nurse. It prepares the advanced practice nurse to conduct focused and comprehensive health assessments of clients across the lifespan. The process of diagnostic reasoning is emphasized as the primary means of collecting and analyzing data obtained from the client history, physical examination, and diagnostic procedures. Two hours lecture weekly. Must be taken concurrently with NURS 616. Pre- or co-requisite: NURS 601. Offered Fall annually and as needed.

NURS 616: ADVANCED HEALTH ASSESSMENT PRACTICUM 1 s.h.

Provides an opportunity for the student to implement the objectives identified in NURS 615. Students may select experiences from a variety of clinical settings appropriate to the course focus. Three clinical hours weekly. This course must be taken concurrently with NURS 615. Pre-requisite: NURS 601. Offered Fall annually and as needed.

- NURS 620:** *CLINICAL DECISION MAKING I* **2 s.h.**
 The focus of this course is clinical data gathering skills, diagnostic reasoning, and clinical problem solving in the management of common health problems of clients throughout the lifespan. Critical thinking skills are emphasized and honed and are used to amplify common sense, intuition, and simple reasoning. Emphasis is placed upon the analysis and synthesis of client data for diagnosis and for identification of appropriate nursing and other therapeutic interventions to be used by the advanced practice nurse. This course is required as a prerequisite to all other clinical nursing courses and is to be taken concurrently with NURS 621. Prerequisite: NURS 615/616. Spring, annually and as needed.
- NURS 621:** *CLINICAL DECISION MAKING I PRACTICUM* **1 s.h.**
 Provides an opportunity for the student to implement the objectives identified in NURS 620. Students may select experiences from a variety of clinical settings appropriate to the course focus. Three clinical hours weekly. This course must be taken concurrently with NURS 620. Pre-requisite: NURS 615. Offered Spring annually and as needed.
- NURS 630:** *CLINICAL DECISION MAKING II* **3 s.h.**
 Focus is on health promotion, wellness maintenance, disease prevention, early detection of problems, prompt treatment of acute illness, and support for management and self-care during chronic conditions of children (birth through adolescence) and childbearing women. All dimensions of development and the total health of the family are considered. Collaboration with other health care providers is fostered. Three lecture hours weekly. Must be taken concurrently with NURS 631 and NURS 632. Pre-requisites: NURS 601, 602, and 614 and minimum grade of "B" in NURS 615 and 620. Offered Fall annually.
- NURS 631:** *CLINICAL DECISION MAKING II: ROLE SEMINAR* **1 s.h.**
 Focus of this seminar will be clinical-based research questions, client presentation, and effective treatment interventions for children (birth through adolescence) and childbearing women. Students are given an opportunity to discuss alternative approaches to diagnosis, advanced nursing, medical, or collaborative management in a controlled environment. Two laboratory hours weekly. Must be taken concurrently with NURS 630 and NURS 632. Pre-requisites: NURS 601, 602, and 614; Minimum grade of "B" in NURS 615 and 620. Offered Fall annually.
- NURS 632:** *CLINICAL DECISION MAKING II PRACTICUM* **2 s.h.**
 Provides an opportunity for the student to implement the objectives identified in NURS 630. Students may select experiences from a variety of clinical settings appropriate to the course focus. Six clinical hours weekly. Must be taken concurrently with NURS 630 and NURS 631. Pre-requisite: NURS 601, 602, and 614, Minimum grade of "B" in NURS 615 and 620. Offered Fall annually.
- NURS 640:** *CLINICAL DECISION MAKING III* **3 s.h.**
 Focus is on health promotion, wellness maintenance, disease prevention, early detection of problems, prompt treatment of acute illness, and support for management and self-care during chronic conditions of young, middle-aged, and older adults. All dimensions of development and the total health of the family are considered. Collaboration with other health care providers is fostered with emphasis upon the coordination and continuity of client care. Three lecture hours weekly. Must be taken concurrently with NURS 641 and NURS 642. Pre-requisites: NURS 601, 602, and 614 and minimum grade of "B" in NURS 615, 620, and 630. Offered Fall annually.
- NURS 641:** *CLINICAL DECISION MAKING III: ROLE SEMINAR* **1 s.h.**
 Focus of this seminar will be clinical-based research questions, client presentation, and effective treatment interventions for young, middle-aged, and older adults. Students are given an opportunity to discuss alternative approaches to diagnosis, advanced nursing, medical, or collaborative management in a controlled environment. Two laboratory hours weekly. Must be taken concurrently with NURS 640 and NURS 642. Pre-requisite: NURS 601, 602, and 614; Minimum grade of "B" in NURS 615, 620, and 630. Offered Spring annually.
- NURS 642:** *CLINICAL DECISION MAKING III PRACTICUM* **2 s.h.**
 Provides an opportunity for the student to implement the objectives identified in NURS 640. Students may select experiences from a variety of clinical settings appropriate to the course focus. Six clinical hours weekly. Must be taken concurrently with NURS 640 and NURS 641. Pre-requisites: NURS 601, 602, and 614; Minimum grade of "B" in NURS 615, 620, and 630. Offered Spring annually.
- NURS 645:** *NURSING AND PUBLIC POLICY* **3 s.h.**
 Examines the implications of health care financing, structuring, labor market trends, and current health care reform proposals for nursing in general and for advanced practice nursing specifically. Additionally, the student will be stimulated to appreciate the critical need for nurses to engage in activities, individually and as members of professional organizations that will enhance the position of nursing in influencing health care policy and legislation at all levels—local, state, and federal. A pervasive theme throughout the course is the ultimate goal of improving the health care of our citizens. Offered Spring annually.
- NURS 675:** *NURSING CURRICULUM DEVELOPMENT* **3 s.h.**
 Examines curriculum development in post-secondary nursing programs. Focuses on philosophical issues, learning theories, learner needs assessment, and curriculum design for target populations in various nursing education programs. Enables advanced practice nursing students to develop and evaluate curriculum for selected nursing education programs. Offered Fall, every other year and/or as needed.
- NURS 676:** *EDUCATIONAL STRATEGIES IN NURSING* **3 s.h.**
 Provides a comprehensive overview of educational strategies for students who desire to function as advanced practice nurses in the educational arena. Provides the necessary theory to implement the instructional process with various populations. Examines issues relevant to educational strategies and their evaluation. Students design and implement a lesson plan. Self-evaluation and critique of others are used as a method to improve teaching. Offered Fall, every other year and as needed.

- NURS 677:** *EVALUATION AND ASSESSMENT IN NURSING* **3 s.h.**
Provides a comprehensive overview of evaluation and assessment in learning for students who desire to function as advanced practice nurses in the educational arena. Emphasizes current issues in assessment, establishment and measurement of learning outcomes, and the development and utilization of assessment tools. Students design and use evaluation tools for clinical and classroom application in nursing and health education. Offered Spring, every other year and/or as needed.
- NURS 750:** *FAMILY NURSE PRACTITIONER INTERNSHIP* **3-6 s.h.**
Provides the opportunity to gain competency in the multifaceted role of nurse practitioner through supervised clinical experience under the guidance of certified nurse practitioners, physician assistants, or licensed physicians approved by the department as preceptors. Prerequisites: All program course work, excluding scholarly paper/thesis. Spring, annually and as needed.
- NURS 751:** *NURSE EDUCATOR INTERNSHIP* **3-6 s.h.**
Provides the opportunity to gain competency in the multifaceted role of nurse educator under the guidance of nurse educators approved by the department as preceptors. Prerequisites: All program course work, excluding scholarly paper/thesis. Spring, annually and as needed.
- NURS 800:** *SCHOLARLY PROJECT/THESIS* **3 s.h.**
Students will engage in group research related to an aspect of care relevant to the nurse practitioner or nurse educator professions. The scholarly project is supervised by a research advisor and committee. Prerequisites: NURS 605 and 610.

Advisement

Upon admission to the MSN Program, students are assigned a faculty advisor at the university closest to their home. Before beginning the first course, successful applicants should meet with the graduate advisor for orientation and assistance in planning their program of studies. This can be accomplished face-to-face, by phone, e-mail, or desktop conferencing.

Second Master and Post-Master's Certificate Policy

Second Master's Degree Curriculum (Family Nurse Practitioner)

Individuals holding a graduate degree in nursing may earn a second master's in nursing degree in the Clarion and Edinboro Universities Family Nurse Practitioner concentration. In order to qualify for a second master's degree, regardless of where the first degree was earned, graduate students must successfully complete a minimum of 30 hours of credit in the Clarion and Edinboro universities program beyond the first master's degree and meet program requirements with respect to the required semester hours of credit and courses for the major. Second master's degree students would typically have transfer credits in nursing theory and research that could apply to the requirements of NURS 605: Evolution of Nursing Theory, NURS 610: Advanced Concepts in Research, and NURS 800: Scholarly Project/Thesis. Students may petition for life experience credits for NURS 614: Health

Promotion: Family and Community Perspectives and NURS 645: Nursing and Public Policy. Clinical courses and the internship are required of all degree students regardless of prior advanced education.

Post-Master's Family Nurse Practitioner Certificate

A post-master's certificate is available to individuals who hold a graduate degree in nursing as nurse practitioners in specialty areas such as pediatrics, adult, or women's health. Nurse practitioners who wish to broaden their education as family nurse practitioners would have their previous educational preparation evaluated on an individual basis according to credentials, education, and professional experience. This review would be used to determine a program of study in the master's program that would be applicable for broadening their education to encompass family practice. A minimum of 15 credits is required to earn a certificate.

Post-Master's Certificate in Nursing Education

A post-master's certificate is available to individuals who hold a master's degree in nursing from an accredited program. This includes nurses who have graduate degrees as nurse practitioners. The purpose of this certificate program is to prepare nurses for teaching positions in nursing in both academic and non-academic settings. A minimum of 15 credits is required to earn a certificate.



GRADUATE STUDIES IN SPECIAL EDUCATION AND REHABILITATIVE SCIENCES

**College of Education
and Human Services**

**Department of Special
Education and Rehabilitative
Sciences**

Master of Science in Rehabilitative Sciences
Mark Kilwein, Ph.D., Graduate Program Coordinator
110A Special Education Center
Telephone: 814-393-2486
E-mail: mkilwein@clarion.edu
www.clarion.edu/departments/spec

Graduate Studies in Special Education
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107 Special Education Center
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www.clarion.edu/departments/spec

Graduate Faculty
Professors: G. Clary, R. Feroz, P. Gent, M. Kilwein
Associate Professors: R. Sabousky, S. Sentner, L. Taylor,
L. Turner
Assistant Professors: Y. Kim, J. Gaggini
Instructor: S. Wynkoop

Program Objectives

The mission of the Master of Science programs within the Department of Special Education and Rehabilitative Sciences is to provide opportunities:

- to update, broaden, and refine the skills and knowledge base of the veteran professional in designing, implementing, and evaluating instruction and services for individuals with disabilities;
- to extend knowledge and skills in research, administration, leadership, and the organization of service delivery;
- to analyze technically complex and current issues within the field; and
- to prepare for more advanced studies and careers in special education and rehabilitative sciences.

The graduate program in special education is accredited by the National Council for the Accreditation of Teacher Education, the Council for Exceptional Children and the Pennsylvania Department of Education.

Master of Science in Rehabilitative Sciences

The master’s degree program in rehabilitative Sciences is designed for students who presently hold a bachelor’s degree and aspire to leadership and management positions in community-based social, clinical, vocational, recreational, case management, residential, and forensic treatment programs. Incoming students declare their intention to be designated in either the traditional (face to face) track or the online program (Web track). Regardless of their designation, students are always encouraged to cross over and sample course offerings from either of the two tracks. Students who are admitted to this 33-credit program typically have experience working with people who have one or more of the following issues: mental retardation, chemical dependency, aging, mental health, delinquency, criminal adjudication, health issues, poverty, and other at-risk environmental or behavioral problems. Graduates will acquire greater knowledge and skills to position them for increased levels of professional responsibility. Within this degree, students will take a core of 15 required graduate credits and an additional 18 graduate credits from elective courses selected by the student in consultation with their advisor. Unless the applicant submits documentation of prior experience in the field through employment or practicum experience, six credits of REHB 495 must be taken in addition to the 33 required credits for the master’s degree to fulfill the field experience component.

Admission Requirements

Clarion University’s general admission requirements apply, with the following additions:

- A baccalaureate degree from an acceptably accredited college or university

- Undergraduate minimum QPA is 3.0 or above (on a 4.0 scale) for full admission
- Scores for the Graduate Record Exam General Test **or** the Miller Analogies Test
- Three faculty and/or professional recommendations; recommendation forms should document applicant’s potential and/or effectiveness in the areas of academic ability and/or professional performance.

Degree Requirements

In addition to the general requirements of the Division of Graduate Studies at Clarion University, students shall meet the following requirements:

- Students must complete a planned program of study approved by their advisors including a minimum of 33 credits.
- Students contemplating more advanced studies after completing the master’s degree or contemplating careers that involve research may elect, with the approval of their advisor, a thesis project (REHB 600).

The purpose of electives is to provide flexibility within the program so students can further develop their knowledge, skills, and expertise in individual areas of career interest and to enhance their career options. The choice of electives is, therefore, not limited to the REHB or SPED courses listed. With the prior approval of the student’s advisor, the student may choose elective courses from other departments or institutions of higher education. Note: In accordance with Clarion University residency requirements, no more than a maximum of 30 percent of the total graduate credits may be transferred from other institutions.

M.S. IN REHABILITATIVE SCIENCES

Required Core	15 credits
REHB 520: RESEARCH IN REHABILITATIVE SCIENCES	3 s.h.
REHB 545: REHABILITATION: PHILOSOPHY AND PRINCIPLES	3 s.h.
REHB 565: SEMINAR ON REHABILITATIVE SERVICE DELIVERY SYSTEMS	3 s.h.
REHB 575: ADMINISTERING REHABILITATION DELIVERY SYSTEMS	3 s.h.
REHB 580: INTERVENTION STRATEGIES IN REHABILITATIVE SCIENCES	3 s.h.
Electives	18 credits
REHB 405: SUBSTANCE ABUSE	3 s.h.
REHB 410: PREVENTION AND TREATMENT OF SUBSTANCE ABUSE	3 s.h.
REHB 510: GROUP PROCESS IN REHABILITATION	3 s.h.
REHB 530: AGING AND THE HUMAN SERVICES	3 s.h.
REHB 530: AGING AND THE HUMAN SERVICES	3 s.h.
REHB 531: IMPACT OF DISABLING CONDITIONS	3 s.h.
REHB 550: ISSUES IN RURAL HUMAN SERVICES	3 s.h.
REHB 581: REHABILITATION OF PERSONS LIVING WITH HIV/AIDS	3 s.h.

REHB 585: SPECIAL TOPICS IN REHABILITATIVE SCIENCES.....	1-3 s.h.
REHB 586: DUAL DIAGNOSIS	3 s.h.
REHB 590: SPECIAL PROJECTS.....	3 s.h.
REHB 600: THESIS.....	3, 6 s.h.
SPED 500: CONTEMPORARY ISSUES IN SPECIAL EDUCATION	3 s.h.
SPED 505: CONCEPTS OF INTELLIGENCE	3 s.h.
SPED 520: ROLE DEVELOPMENT WITH PARENTS.....	3 s.h.
SPED 530: LEARNING DISABILITIES.....	3 s.h.
SPED 535: ADVANCED METHODS FOR INDIVIDUALS WITH SEVERE HANDICAPS.....	3 s.h.
SPED 538: CRISIS INTERVENTION IN REHABILITATION.....	3 s.h.
SPED 540: BEHAVIOR DISORDERS	3 s.h.
SPED 567: SEMINAR IN ADVANCED APPLIED BEHAVIOR ANALYSIS	3 s.h.

A maximum of six credits from the 400-level courses listed above can be taken for graduate credit with special permission. Please note that 400-level courses taken for undergraduate credit cannot be repeated for graduate credit.

Master of Education with Special Education Concentration

The master of education with a concentration in special education program is primarily designed for individuals who possess a teaching certificate in some other area and wish to add a special education teaching certificate while also receiving a master's degree. If completed as prescribed, the program will lead to Pennsylvania certification in special education.

Admission Requirements

Clarion University's general admission requirements apply, with the following additions:

- A baccalaureate degree from an acceptably accredited college or university
- Undergraduate minimum QPA of 3.0 on a 4.0 scale
- Three faculty and/or professional recommendations; recommendation forms should document applicant's potential and/or effectiveness in the areas of teaching ability and/or professional performance
- Clarion University students will be provided an expedited application process.

Degree Requirements

In addition to the general requirements of the Division of Graduate Studies at Clarion University, students shall meet the following requirements:

- Students must complete a planned program of study approved by their advisor ranging from 30-33 credits
- Successful completion of SPED 418 within the last two years or SPED 531 as a three-credit elective. Students who never completed a

comparable special education course will take SPED 418:31. Students contemplating more advanced studies after completing the master's degree or contemplating careers that involve research may elect, with advisor approval, a special project (SPED 690).

Note: In accordance with Clarion University residency requirements, no more than a maximum of 30 percent of the total graduate credits may be transferred from other institutions.

MASTER OF EDUCATION WITH SPECIAL EDUCATION CONCENTRATION

Core Competencies 6 credits

ED 520 INTRODUCTION TO RESEARCH.....	3
ED 578 PROFESSIONAL SEMINAR	3

Specialization Courses 27 credits

SPED 462: EDUCATIONAL ASSESSMENT	3
SPED 472: ASSISTIVE TECHNOLOGY	3
SPED 482: SPECIAL MATHEMATICS INSTRUCTION.....	3
SPED 500: CONTEMPORARY ISSUES IN SPECIAL EDUCATION.....	3
SPED 522: SPECIAL EDUCATION CLASSROOM ADMINISTRATION	3
SPED 544: HIGH INCIDENCE METHODS AND PRACTICUM.....	3
SPED 546: LOW INCIDENCE METHODS AND PRACTICUM	3
SPED 567: SEMINAR IN APPLIED BEHAVIOR ANALYSIS	3
SPED 580: SPECIAL READING INSTRUCTION	3

Electives

SPED 418: EXCEPTIONALITIES IN THE REGULAR CLASSROOM OR SPED 531: IMPACT OF DISABLING CONDITIONS	
One other special education or rehabilitative sciences elective	3

Fieldwork

Students enrolled in the Master of Education with Special Education Program will complete fieldwork incorporated in SPED 544: High Incidence Methods and Practicum and SPED 546: Low Incidence Methods and Practicum. This fieldwork is embedded in the course and requires students to spend several weeks in an assigned special education classroom.

INTEGRATED MIDDLE LEVEL BACCALAUREATE AND MASTER OF EDUCATION SPECIAL EDUCATION CONCENTRATION

To meet the new standards and offer Clarion University students a unique opportunity to complete a program with both middle level and special education certification, an integrated program design has been created.

For this circumstance only, those students wishing to matriculate to graduate school to receive Special Education certification the following courses will be substituted in the Middle level program of study:

Required Course	Substitution
SPED 441	SPED 462
SPED 442	SPED 482

These students, not possessing an initial certification, would be required to student teach in both the Middle-level area and the Special Education area. Therefore, 6 of the 12 credits of EDML 425 (Student Teaching) would be substituted with 6 credits of SPED 450 (Student Teaching). The SPED 462 and SPED 482 would count on the undergraduate record and as competencies completed for the Master of Education with Special Education Concentration.

The result of this integrated program would be in the awarding of a B.S.E.D. Middle Level and M.Ed. with Special Education Concentration, as well as certification in both middle-level and special education after the completion of all requirements.

MASTER OF EDUCATION WITH SPECIAL EDUCATION CONCENTRATION AND MIDDLE-LEVEL CERTIFICATION 5-YEAR PROGRAM

Core Competencies 6 credits

- ED 520: INTRODUCTION TO RESEARCH 3 s.h.
- ED 578: PROFESSIONAL SEMINAR 3 s.h.

Specialization Courses 21 credits

- SPED 462: EDUCATIONAL ASSESSMENT * 3 s.h.
- SPED 472: ASSISTIVE TECHNOLOGY 3 s.h.
- SPED 482: SPECIAL MATHEMATICS INSTRUCTION * 3 s.h.
- SPED 500: CONTEMPORARY ISSUES IN SPECIAL EDUCATION 3 s.h.
- SPED 522: SPECIAL EDUCATION CLASSROOM ADMINISTRATION 3 s.h.
- SPED 544: METHODS OF PRACTICUM HIGH INCIDENCE 3 s.h.
- SPED 546: METHODS OF PRACTICUM LOW INCIDENCE 3 s.h.
- SPED 567: SEMINAR ON ABA 3 s.h.
- SPED 580: SPECIAL READING INSTRUCTION 3 s.h.

Special Education/Rehabilitative

Sciences Elective 3 Credits

TOTAL 30 Credits

INTERVENTION SPECIALIST PROGRAM

The Department of Special Education and Rehabilitative Sciences has created a program designed to meet the needs of a variety of learners with disabilities, at risk for disabilities, and those with reading disabilities.

The Intervention Specialist Program at Clarion University is designed to prepare a new professional for the commonwealth’s schools. The program combines special education, special reading education, as well as mathematics content knowledge, to ensure that individuals with special learning needs and diverse abilities entitled to a free, appropriate quality education utilizing specialized teaching receive it at all age levels. Upon completion of the program, students will earn a Bachelor of Science in Special Education degree, a Master of Science in Special Education degree, and be prepared to sit for the Praxis II certification examination for special education as well as Reading Specialist Certification. Individuals would also be entitled to a mathematics endorsement from the Pennsylvania Department of Education.

Individuals wishing to become enrolled in this program must understand that teaching experience is required

before entering the graduate portion of the program, therefore the program requires at the undergraduate level more than 600 hours of supervised practicum experience as well as completing all requirements for special education certification including passing the Praxis II examination. As per PDE requirement, no certifications can be awarded individually; the requirements for both must be completed in the prescribed order.

Master of Science in Special Education

INTERVENTION SPECIALIST CONCENTRATION 33 credits

- SPED 501: FOUNDATIONS FOR LITERACY INSTRUCTION FOR EXCEPTIONAL READERS 3
- SPED 502: CURRICULUM DESIGN AND MATERIALS FOR TEACHING EXCEPTIONAL READERS 3
- SPED 503: EDUCATIONAL ASSESSMENT FOR EXCEPTIONAL READERS 3
- SPED 504: TEACHING EMERGENT AND DEVELOPING EXCEPTIONAL READERS 3
- SPED 506: TEACHING EXCEPTIONAL ADOLESCENTS WITH READING PROBLEMS 3
- SPED 507: WRITTEN AND VISUAL EXPRESSION FOR EXCEPTIONAL READERS 3
- SPED 508: PROFESSIONAL SEMINAR: DELIVERING EVIDENCED-BASED INSTRUCTION 3
- ED 520: OR REHB 520 RESEARCH COMPONENT 3
- ED 574: READING PROGRAM ORIENTATION, ADMINISTRATION, AND SUPERVISION 3
- SPED 509: INTERVENTION SPECIALIST STUDENT TEACHING UNDERGRADUATE COMPONENT 6

SPECIAL EDUCATION CERTIFICATION CORE 33 credits

- SPED 128 HIGH INCIDENCE EXCEPTIONALITIES 3
- SPED 129 LOW INCIDENCE EXCEPTIONALITIES 3
- SPED 245 APPLIED BEHAVIOR ANALYSIS 3
- SPED 350 SEMINAR: CONTEMPORARY ISSUES IN SPED 2
- SPED 381 SPECIAL READING AND WRITTEN INSTRUCTION 3
- SPED 462 EDUCATIONAL ASSESSMENT 3
- SPED 472 ASSISTIVE TECHNOLOGY 3
- SPED 482 SPECIAL MATHEMATICS INSTRUCTION 3
- SPED 422 SPECIAL EDUCATION CLASSROOM ADMIN. 3
- SPED 444 METHODS AND PRACTICUM—HIGH INCIDENCE 3
- SPED 446 METHODS AND PRACTICUM—LOW INCIDENCE 3
- SPED 411 EDUCATIONAL ASSESSMENT PRACTICUM 1

Student Teaching 6 credits

- SPED 450 STUDENT TEACHING 6

MATHEMATICS REQUIRED RELATED ELECTIVES (12 CREDITS)

This area will be designed with the advisor to select courses to enable students to have enhanced mathematics content knowledge. These credits will be beyond the 6 credits of the MATH 111/211 requirement. MATH 110–MATH 480, excluding MATH 010, MATH 050, MATH 290, and MATH 390, are acceptable credits for this requirement.

INTERVENTION SPECIALIST CORE	21 credits
SPED 211: INTELLECTUAL DISABILITIES	3
SPED 230: SOCIAL AND EMOTIONAL DISTURBANCES	3
COOP 378: CO-OP/LEARNING DISABILITIES	3
SPED 492: SPECIAL MATHEMATICS INSTRUCTION II	3
SPED 442: DIFFERENTIATING INSTRUCTION	3
ENG 459: LANGUAGE ACQUISITION ACROSS CULTURES	3
SPED 432: SPECIFIC LEARNING DISABILITIES	3
Total:	120 credits

Education Specialist (Ed.S)

This degree is listed as an intermediate degree between the masters and doctorate, and is described as promoting in-depth understanding of the profession, providing advanced preparation for those who have demonstrated the capacity to be leaders in the field, as a degree to enhance the practicing professional, and to prepare entry-level post-secondary faculty. This degree program would range from 33-39 credits of coursework beyond the master's degree depending upon the track of study or endorsement area(s) identified by the student. This program creates an expanding career path for educational professionals.

There are several benefits to having an education specialist degree:

- Salaries for individuals with this degree tend to be higher than for a master's-prepared individual.
- Individuals with this degree are more marketable with significantly increased job options, including administrative and central office positions.
- Individuals with a specialist degree have a discrete set of specialized skills in theory, practice, policies, and procedures, making them more attractive in the job market.

Candidates for the Ed.S. degree include post-master's professionals who are seeking a planned and structured program of advanced study including: teachers, reading specialists, administrators, counselors, and other types of education or even human services personnel. The program is flexible to accommodate the needs of post-master's degree students who wish to assume leadership roles in schools and agencies that provide special education and related services to children, youth, and adults who have disabilities, special needs, or who are gifted.

Admission

Clarion University's general graduate admissions requirements apply as well as the following:

- Students seeking admission must hold a bachelor's degree and master's degree from an acceptably accredited institution
- Hold current teacher certification or other certification or license related to the discipline of special education or be involved with school/service oriented programs for those with disabilities, special needs, or who are gifted
- Satisfactory scores on the Graduate Record Exam or the Miller's Analogy Test

- Three professional/faculty recommendations related to the field

Degree Requirements

In addition to the general requirements of the Division of Graduate Studies at Clarion University, students shall meet the following requirements:

- Students must complete a planned course of study approved by their advisor including a minimum of 33 -39 credits
- Since this is a program of advanced study, students will complete either a thesis option or a field-based special project
- Students are required to select either the special education generalist preparation or select from one of the endorsement areas of study listed below in addition to the education specialist core courses.

Endorsement Areas

GIFTED EDUCATION	9 credits
SPED 514: INTRODUCTION TO GIFTED EDUCATION	3 credits
SPED 539: CURRICULUM DEVELOPMENT AND EDUCATIONAL PROGRAMMING IN GIFTED EDUCATION	3 credits
SPED 597: COLLABORATION AND COOPERATION: IMPROVED TEACHING AND LEARNING OUTCOMES	3 credits
READING FOR EXCEPTIONAL STUDENTS	12 credits
SPED 501: FOUNDATIONS FOR LITERACY INSTRUCTION FOR EXCEPTIONAL READERS	3 credits
SPED 503: EDUCATIONAL ASSESSMENT FOR EXCEPTIONAL READERS	3 credits
SPED 504: TEACHING EMERGENT AND DEVELOPING EXCEPTIONAL READERS	3 credits
SPED 506: TEACHING EXCEPTIONAL ADOLESCENTS WITH READING PROBLEMS	3 credits
TRANSITION FROM SCHOOL TO ADULT LIFE	9 credits
REHB 537: LIFE STYLE AND CAREER DEVELOPMENT	3 credits
REHB 567: SEMINAR ON REHABILITATION SERVICES DELIVERY SYSTEMS	3 credits
SPED 571: COMMUNITY ADJUSTMENT AND TRANSITION	3 credits

Endorsement Areas—Graduate students may take up to 9 credits (one endorsement area, except for reading), without being admitted to the program.

ED.S. IN SPECIAL EDUCATION

Required Core	24-30 credits
ED 520: INTRODUCTION TO RESEARCH	3 credits
SPED 696: CONTEMPORARY EDUCATION PRACTICES AND DIRECTIONS	3 credits
SPED 620: ROLE DEVELOPMENT WITH FAMILIES	3 credits
SPED 632: POLICY AND PRACTICE IN SPECIAL EDUCATION	3 credits
SPED 635: ADVANCED METHODS FOR INDIVIDUALS WITH LOW INCIDENCE DISABILITIES	3 credits
SPED 636: ADVANCED METHODS FOR INDIVIDUALS WITH HIGH INCIDENCE DISABILITIES	3 credits
SPED 637: SEMINAR IN SINGLE-SUBJECT RESEARCH AND DESIGN	3 credits

SPED 690 SPECIAL PROJECTS.....3 credits
OR

SPED 700 THESIS.....6 credits total

Students could elect to take a generalist special education option as opposed to an endorsement area from above. Students who choose this option will design their course of study with their advisor delineating specific career goals.

Courses for selection include (minimum of 6 credits)

SPED 505: CONCEPTS OF INTELLIGENCE3 credits

SPED 530: LEARNING DISORDERS3 credits

SPED 540: BEHAVIOR DISORDERS3 credits

SPED 562: SERVICE LEARNING3 credits

SPED 567: SEMINAR IN ADVANCED APPLIED

BEHAVIOR ANALYSIS3 credits

SPED/CSD 575 AUGMENTATIVE AND ALTERNATIVE

COMMUNICATION.....3 credits

No 400-level courses taken for graduate credit will be accepted for this degree.

Special Education Service Courses for College of Education Majors (Students not seeking Special Education Certification)

For Secondary Majors:

SPED 418: EXCEPTIONALITIES IN THE REGULAR CLASSROOM

SPED 441: TEACHING STUDENTS WITH DISABILITIES IN THE SECONDARY CLASSROOM

SPED 442: DIFFERENTIATING INSTRUCTION IN INTRUSIVE SETTINGS

*SPED 418: IS THE PREREQUISITE FOR THE OTHER TWO COURSES

*EITHER SPED 418 OR BOTH SPED 128 AND 129 ARE PREREQUISITES FOR SPED: 442.

For Mid-Level and Early Childhood Majors:

SPED 418: EXCEPTIONALITIES IN THE REGULAR CLASSROOM

SPED 442: DIFFERENTIATED INSTRUCTION IN INCLUSIVE SETTINGS

SPED 443: PREVENTION AND TREATMENT OF ACADEMIC AND LEARNING PROBLEMS

**SPED 418 IS THE PREREQUISITE FOR SPED 443.

**EITHER SPED 418 OR BOTH SPED 128 AND 129 ARE THE PREREQUISITES FOR SPED 442

Graduate Assistantships

The Department of Special Education and Rehabilitative Sciences regularly awards a number of graduate assistantships. Assistantships in special education and rehabilitative sciences serve a variety of purposes. Graduate assistants (GAs) assist the professors in developing course materials and resources, carrying out literature searches, and

supervising and assisting undergraduates in the computer lab. Graduate assistantships not only provide unique experiences within the field, but also are an opportunity for the student to pursue advanced training with financial support.

Applicants for a graduate assistantship must have completed all program application requirements and have been admitted in full standing to the program. A separate GA application must then be submitted to the Department of Special Education and Rehabilitative Sciences. All applications for GAs should be submitted as early as possible to ensure consideration for the following academic year.

Note: Graduate students who are completing a student teaching requirement as a part of state certification requirements or other internship or apprenticeship may not hold a graduate assistantship during the semester of their student teaching.

Physical Facilities

The Department of Special Education and Rehabilitative Sciences is housed in a two-story wing of Stevens Hall on the Clarion Campus. In addition to the modern classrooms, an array of instructional support technology is available.

In addition to the numerous computer labs across the campus, there is a computer lab in Stevens Hall and another in the Department of Special Education and Rehabilitative Sciences. In the lab, students have access to a variety of instructional and management software along with IBM and MAC hardware and adaptive communication devices for computer and stand-alone devices. Students have access to mainframe computer support through the campus systems.

The department maintains ongoing cooperative relations with numerous school districts, Intermediate Units, and rehabilitation programs in the region, all of which are available to assist in providing a wide array of field opportunities.

Release of Data from M.S.

Thesis-Publication Policy

In accordance with professional ethics, any information from master's research should be published or otherwise released only in conjunction with the student's advisor. Publications resulting from research done at Clarion University shall give appropriate credit to persons involved in the research, to Clarion University, and to any granting agencies which supported the research.

Rehabilitative Sciences Courses

A maximum of six credits from the 400-level courses listed below can be taken for graduate credit with special permission from the graduate program coordinator or department chair. 400-level courses taken for undergraduate credit cannot be repeated for graduate credit.

- REHB 405: SUBSTANCE ABUSE** **3 s.h.**
 Participants study the physiological and psychological 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 comparative analysis of efficacy. Prerequisite: REHB 405. Spring semester.
- REHB 510: GROUP PROCESS IN REHABILITATION** **3 s.h.**
 Participants engage in the study of group development, dynamics, theory, leadership styles, participant roles, techniques, and evaluation of effectiveness as applied to rehabilitative services contexts.
- REHB 520: RESEARCH IN REHABILITATIVE SCIENCES** **3 s.h.**
 Provides the essential knowledge and skills required to be both critical consumers and producers or researchers in rehabilitative sciences. Students are introduced to all phases of quantitative and qualitative research design, analysis, and evaluation. Applicable ethical standards of practice as specified by the Council on Rehabilitation Education are emphasized throughout.
- REHB 530: AGING AND THE HUMAN SERVICES** **3 s.h.**
 Provides information related to older adult care management from the framework of human services systems. Concepts of client triage, assessment, planning, and brokering will be reviewed within the context of identifying problems associated with aging, identifying components of human services delivery systems, and case management skill development. Prerequisite: REHB 250.
- REHB/SPED 531: IMPACT OF DISABLING CONDITION** **3 s.h.**
 The impact of developmental disabilities as reflected in the function of individuals will be described. The course covers prenatal, perinatal, and postnatal concerns, as well as various physical disabilities, disabilities of age, and interventions.
- REHB 537: LIFESTYLE AND CAREER DEVELOPMENT** **3 s.h.**
 Participants engage in the analysis of economic, social, and psychological factors which define the context of educational, vocational, and personal decision-making; decision-making related to vocational development; the role of information in facilitating decision-making; and the varieties of information, resources, and types of access available.
- REHB 538: CRISIS INTERVENTION IN REHABILITATION** **3 s.h.**
 This course provides professionals with information and skills to effectively assess and intervene in crisis situation involving clients, families, organizations, and communities.
- REHB 545: REHABILITATION: PHILOSOPHY AND PRINCIPLES** **3 s.h.**
 Participants engage in the analysis of the values, assumptions, and the principles underlying theories of rehabilitation and their relation to the goals and objectives of rehabilitation programs.
- REHB 550: ISSUES IN RURAL HUMAN SERVICES** **3 s.h.**
 Explores the field of human services delivery and behavioral health care issues in rural environments including mental health care, gerontology, substance abuse, education, vocational rehabilitation, disability, poverty, and the criminal justice system. The course encompasses the various definitions of rural, diversity of rural communities, the common challenges faced and the professional skills needed by rural practitioners.
- REHB 565: SEMINAR ON REHABILITATIVE SERVICE DELIVERY SYSTEMS** **3 s.h.**
 Participants explore the continuum of human service delivery systems, with special focus on aging, mental retardation, and substance abuse. History and student professional experiences are considered in addition to current information and trends to identify problems and opportunities for making systems more responsive to consumer needs.
- REHB 575: ADMINISTERING REHABILITATION DELIVERY SYSTEMS** **3 s.h.**
 Participants engage in the study of the business and personnel aspects of functioning in and managing human service delivery systems, including organization, operations, and management relative to legal, economic, and personnel standards and practice.
- REHB 580: INTERVENTION STRATEGIES IN REHABILITATIVE SCIENCES** **3 s.h.**
 Participants review and practice a variety of common clinical intervention techniques used by professionals in mental retardation, gerontological, and substance abuse treatment. These include creative and expressive techniques (e.g., art, music, drama, recreation, horticulture), behavioral interventions (e.g., relaxation, systematic desensitization, contracts), and didactic group and individual work.
- REHB 581: REHABILITATION OF PERSONS LIVING WITH HIV/AIDS** **3 s.h.**
 Provides an overview of rehabilitation issues involved in working with people living with HIV/AIDS. Topics include an overview of the medical aspects of the virus. Special emphasis is placed on issues of rehabilitation, including mental health, substance abuse, support networks, social relationships, and employment.

- REHB 585:** *SPECIAL TOPICS IN REHABILITATIVE SCIENCES* **1-3 s.h.**
 Study of topical material reflecting new ideas, knowledge, or methods relevant to Rehabilitative Sciences. Course content will vary from semester to semester. Topics will be announced in advance.
- REHB 586:** *DUAL DIAGNOSIS* **3 s.h.**
 The course provides an overview of clinical issues involved in working with clients who suffer from co-morbid substance use and major psychiatric disorders. Topics include assessment, counseling, prevalence, health care policy, and social stigma.
- REHB 590:** *SPECIAL PROJECTS* **3 s.h.**
 Participants engage in either scholarly or applied research related to rehabilitative sciences under the supervision of a faculty member. By permission only. On demand.
- REHB 600:** *THESIS* **3,6 s.h.**
 This elective course requires each student to develop a thesis related to rehabilitative sciences. Must be taken for two semesters of three credits each. Prerequisite: REHB 520.

Special Education Courses

A maximum of six credits from the 400-level courses listed below can be taken for graduate credit with special permission from the graduate program or department chair. Any 400-level courses taken for undergraduate credit cannot be repeated for graduate credit.

- SPED 418:** *EXCEPTIONALITIES IN THE REGULAR CLASSROOM* **3 s.h.**
 This course is designed to prepare students to deal with the nature and needs of the exceptional person in a regular classroom. Contemporary methods of identification, services for the exceptional individual, and legal aspects of the least restrictive environment are examined.
- SPED 441:** *TEACHING STUDENTS WITH DISABILITIES IN THE SECONDARY CLASSROOM* **3 s.h.**
 Prepares educators with the skills and knowledge to deliver and support instruction to students with disabilities in secondary classroom settings. Prerequisite: SPED 418.
- SPED 442:** *DIFFERENTIATED INSTRUCTION IN INCLUSIVE SETTINGS* **3 s.h.**
 Focuses on planning, designing, and delivering differentiated instruction to an increasingly diverse general education population, including students with disabilities, students who are gifted, students at risk, and students with cultural differences. Prerequisite: SPED 418.
- SPED 443:** *PREVENTION AND TREATMENT OF ACADEMIC AND LEARNING PROBLEMS* **3 s.h.**
 This course will review the practice of prevention and intervention in dealing with students who are academically deficient, including, response-to-intervention, scientifically-based instruction, and the teacher, learner, curriculum interface. Prerequisite: SPED 418.
- SPED 462:** *EDUCATIONAL ASSESSMENT* **3 s.h.**
 In this course, the participants acquire knowledge and skills in the acquisition, analysis, and synthesis of information needed for decision making regarding individuals with disabilities or suspected disabilities, and apply these skills in case studies and simulations. Prerequisites: Successful completion of SPED 418 or equivalent courses.
- SPED 472:** *ASSISTIVE TECHNOLOGY* **3 s.h.**
 Overview of a wide range of assistive technology devices and services for individuals with mild to severe disabilities. Demonstration of devices, laboratory experience, assessment, and identification of funding resources.
- SPED 482:** *SPECIAL MATHEMATICS INSTRUCTION* **3 s.h.**
 Provides students with specific data-based strategies to teach mathematics to students with disabilities. Prerequisite: MATH111 or equivalent.
- SPED 500:** *CONTEMPORARY ISSUES IN SPECIAL EDUCATION* **3 s.h.**
 Participants engage in problem-centered analyses and investigations, and in determination of responses relative to the contemporary issues confronting special education.
- SPED 501:** *FOUNDATIONS FOR LITERACY INSTRUCTION OF EXCEPTIONAL READERS* **3 s.h.**
 Students will be provided a historical perspective concerning the teaching of reading and the relationships between psychological, sociological, and linguistic processes and how these influence reading and writing development.
- SPED 502:** *CURRICULUM DESIGN AND MATERIALS FOR TEACHING EXCEPTIONAL READERS* **3 s.h.**
 This course examines the theory and practices of curriculum development and related issues in teaching reading to learners with exceptionalities. In addition it covers issues related to children's literature.
- SPED 503:** *EDUCATIONAL ASSESSMENT FOR EXCEPTIONAL READERS* **3 s.h.**
 In this course, students are taught the concept, knowledge, and competencies required for specialized formal and informal reading assessment, interpretation, and diagnosis for grades Pre-K to 12.
- SPED 504:** *TEACHING EMERGENT AND DEVELOPING EXCEPTIONAL READERS* **3 s.h.**
 This course is designed to provide students with research-based techniques and strategies that are required to promote the growth from emergent to conventional reading, writing, and literacy concepts for children with disabilities.

- SPED 505:** *CONCEPTS OF INTELLIGENCE* **3 s.h.**
 Participants engage in an extensive study of the nature of cognition, traditional and contemporary, with emphasis on the development of a paradigm having relevance to the educational process.
- SPED 506:** *TEACHING EXCEPTIONAL ADOLESCENTS WITH READING PROBLEMS* **3 s.h.**
 This course will prepare teacher candidates to address the challenges presented in the curriculum area of reading for secondary students with high incidence disabilities. Specifically, content addressed in this course include classroom reading assessment, instructional strategies, and special considerations in reading instruction for adolescents with high-incidence disabilities in general education classrooms.
- SPED 507:** *WRITTEN AND VISUAL EXPRESSION FOR EXCEPTIONAL READERS* **3 s.h.**
 This course presents evidence-based practices for enhancing the writing and visual literacy of elementary and secondary students. It also presents effective strategies for teaching writing to multilingual students with special needs.
- SPED 508:** *PROFESSIONAL SEMINAR: DELIVERING EVIDENCE-BASED INSTRUCTION* **3 s.h.**
 Teacher candidates will examine evidence based reading instruction as it applies to individuals with disabilities. Integration of research and best practices will serve as the core of this course as well as developing skills to serve in leadership positions on response to intervention (RTI) teams.
- SPED 509:** *INTERVENTION SPECIALIST STUDENT TEACHING* **6 s.h.**
 Observation and participation in intervention in reading and/or mathematics and in activities related to the performance of an intervention specialist's work.
- SPED 514:** *INTRODUCTION TO GIFTED EDUCATION* **3 s.h.**
 Provides the foundational background necessary for understanding and working effectively with learners who are gifted and talented. Focuses on foundations, nature, and definition of giftedness; characteristics of learners who are gifted and talented; identification procedures; individual learning differences; specialized needs of learners who are gifted and talented; service delivery options including acceleration and enrichment, and grouping strategies.
- SPED 522:** *ADMINISTRATION OF THE SPECIAL EDUCATION CLASSROOM* **3 s.h.**
 In addition to mastering instructional strategies and curricular content, today's special education teachers are required to be knowledgeable about various theories, policies, and procedures necessary for the complex daily administration of the special education program. Competencies included in this course will be: adapting the classroom environment to meet the physical, academic, and emotional needs of students; classroom management techniques; interpretation of evaluation data; administration of a functional behavioral assessment; development of the IEP, behavior, and transition plans; and collaboration with other professionals, paraprofessionals, and parents.
- SPED 530:** *LEARNING DISABILITIES* **3 s.h.**
 Participants acquire knowledge and skills for designing diagnostic/prescriptive programs in perceptual-motor, cognitive, linguistic, academic, social, and career domains for individuals with specific learning disabilities.
- SPED 531:** *IMPACT OF DISABLING CONDITIONS* **3 s.h.**
 The impact of developmental disabilities as reflected in the function of individuals will be described. The course covers prenatal, perinatal, and postnatal concerns, as well as various physical disabilities, disabilities of aging, and interventions.
- SPED 534:** *WORKSHOP IN SPECIAL EDUCATION* **1-3 s.h.**
 Provides practicing teachers with professional development opportunities in areas of curriculum, assessment, and instruction for students with disabilities. Prerequisites: Teaching experience in elementary and/or secondary education and if enrolled in the Special Education or Rehabilitative Sciences Graduate Program, permission of academic advisor.
- SPED 539:** *CURRICULUM DEVELOPMENT AND EDUCATIONAL PROGRAMMING IN GIFTED EDUCATION* **3 s.h.**
 Provides instruction in the development, selection, and implementation of appropriate curriculum for learners who are gifted and talented. Emphasis is placed on integration of a standards-based curriculum with adaptations for learners who are gifted and talented. Topics include: curriculum models, technology, assessment methods, special populations, specialized instructional strategies for learners who are gifted, differentiation of curriculum and instruction, and individualized programming. Prerequisite: SPED 514.
- SPED 540:** *BEHAVIOR DISORDERS* **3 s.h.**
 Participants engage in the study of maladaptive behavior in individuals with emphasis on current definitions, classification systems, major etiological perspectives, and contemporary interventions.
- SPED 544:** *METHODS AND PRACTICUM FOR INDIVIDUALS WITH HIGH INCIDENCE DISABILITIES* **3 s.h.**
 This is about individualizing instruction for students with mild and moderate disabilities. It involves designing basic instructional sequences, utilizing behavioral objectives, matching technology, learner and goal characteristics, identifying appropriate instructional strategies, and evaluating the effectiveness of instruction.
- SPED 546:** *METHODS AND PRACTICUM FOR PERSONS WITH LOW INCIDENCE DISABILITIES* **3 s.h.**
 Focuses on individualizing instruction for individuals with low incidence disorders. Includes designing basic instructional sequences, utilizing behavioral objectives, technology, learner and goal characteristics; identifying appropriate instructional strategies, and evaluating the effectiveness of instruction.
- SPED 562:** *SERVICE LEARNING* **3 s.h.**
 The course provides an overview of service-learning as a teaching methodology. History, legislation, and theory relevant to service learning is presented. Students learn the components and standards of service-learning. Students plan and implement service-learning projects relative to these. Students also learn how to assess service-learning projects, meet curricular and learner needs through service-learning, and develop community partners. Literature addressing the effectiveness of service-learning as a teaching tool and the relationship of service-learning to the educational reform movement will be examined.

- SPED 567: SEMINAR IN ADVANCED APPLIED BEHAVIOR ANALYSIS 3 s.h.**
This seminar examines contemporary theory research, and practice in applied behavior analysis with particular emphasis given to applications in the fields of special education and rehabilitative sciences.
- SPED 571: COMMUNITY ADJUSTMENT- FUTURES PLANNING FOR STUDENTS WITH DISABILITIES 3 s.h.**
This course will examine the models of transition service delivery, the relationships between special education, vocational education, rehabilitation, and the technology used to promote the movement of individuals with disabilities from school to adult life.
- SPED/CSD 575: AUGMENTATIVE AND ALTERNATE COMMUNICATION 3 s.h.**
This course is designed to introduce the student to various augmentative/alternative communication systems prevalent in the field. Current and comprehensive information relative to type of disorder, diagnosis, and treatment will be discussed. An emphasis will be placed on the application of unique criteria in diagnostics and the administration of competent and flexible management strategies in rehabilitation.
- SPED 580: SPECIAL READING INSTRUCTION 3 s.h.**
This course is designed to provide in-service and pre-service professionals with the knowledge and skills to serve students with mild/moderate reading disabilities. Individuals taking the course will assimilate characteristics of identified students, assessment processes and alternative interventions.
- SPED 585: SPECIAL TOPICS IN SPECIAL EDUCATION 1-3 s.h.**
Study of topical material reflecting new ideas, knowledge, or methods relevant to special education. Course content will vary from semester to semester. Topics will be announced in advance. As needed.
- SPED 597: COLLABORATION AND COOPERATION: IMPROVED TEACHING AND LEARNING OUTCOMES 3 s.h.**
This course is intended to improve the teaching and learning outcomes in basic education by focusing on collaboration and cooperative-education processes and teaching methodologies. The development of strategies for promoting professional and community collaborations established in SPED 596: Contemporary Education Practices and Directions, is continued in this offering. Teaching models and methods facilitative to encouraging and maintaining collaborative and cooperative-educational practices extend the skills of professional educators in appropriately serving the educational needs of an increasingly diverse learning audience. Prerequisite: SPED 596 or approval of instructor.
- SPED 620: ROLE DEVELOPMENT WITH PARENTS 3 s.h.**
Participants acquire knowledge and skills in working with and involving parents to maximize developmental and learning opportunities for their children with disabilities, and in responding to the unique challenges confronting families of children with disabilities.
- SPED 632: POLICY AND PRACTICE IN SPECIAL EDUCATION 3 s.h.**
The delivery of special education is influenced by many factors other than good teaching. Compliance with federal guidelines, ever-changing budgets, and political climates continue to act on the delivery of special education. In order for our graduate students to be able to grow as professionals, they will need to be aware of these forces and how they interact with special education policy and service delivery.
- SPED 635: ADVANCED METHODS FOR INDIVIDUALS WITH SEVERE HANDICAPS 3 s.h.**
Participants acquire knowledge and skills related to the design, implementation, and evaluation of instructional interventions for individuals with severe/profound disabilities.
- SPED 636: ADVANCED METHODS FOR INDIVIDUALS WITH MILD/MODERATE HANDICAPS 3 s.h.**
Participants acquire knowledge and skills related to the design, implementation, and evaluation of instructional interventions for individuals with mild/moderate disabilities.
- SPED 637: SEMINAR IN SINGLE SUBJECT RESEARCH DESIGN 3 s.h.**
This course will enable students to conduct single-case research in special education and rehabilitative science. This course provides theory and scenario-based practice with a variety of single-case and replicated single-case designs.
- SPED 690: SPECIAL PROJECTS 3 s.h.**
Participants engage in either scholarly or applied research related to the education of children and youth with disabilities under the supervision of a faculty member. By permission only.
- SPED 696: CONTEMPORARY EDUCATION PRACTICES AND DIRECTIONS 3 s.h.**
This course saliently provides the philosophical and pragmatic basis for the rationale for change in contemporary education. Legislation, litigation, and research within the profession provide the foundation for understanding why the profession must explore innovative strategies for improving the educational outcomes of all children. Terminologies which dominate professional dialogue are explored and studied to separate dogma from substance. Learner characteristics, which are indicative of the diversity naturally present in society, are addressed relative to implications in teaching and learning.
- SPED 700: THESIS 3, 6 s.h.**
This course requires each student to develop a thesis related to special education. Must be taken for two semesters of three credits each. Prerequisite: ED 520.



MASTER OF SCIENCE DEGREE IN SPEECH LANGUAGE PATHOLOGY

College of Education and Human Services

Department of Communication Sciences and Disorders

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Graduate Faculty

Professors: J. Jarecki-Liu, C. McAleer
Assistant Professor: K. Staub, M. Mason-Baughman

The Communication Sciences and Disorders (CSD) Department offers a graduate program leading to a master of science degree in speech language pathology. The graduate program is accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology of the American Speech-Language-Hearing Association.

Admission Requirements

Division of Graduate Studies admission requirements apply with the following additions:

- A baccalaureate degree from an acceptably accredited college or university.

For full admission consideration:

An overall QPA for the baccalaureate degree of at least 3.0 on a 4.0 scale **or** a 2.75 to 2.99 overall QPA for the baccalaureate degree with a score of at

least 1,000 on the GREs. A full-admission status is required for graduate assistantship consideration.

For provisional admission consideration for those with less than a 3.0 overall QPA:

An applicant must have a minimum QPA of 2.75 on a 4.0 scale. A provisionally admitted student must complete the first nine graduate credits by earning grades of “B” or higher in each course to continue in the program and receive a full-admission status. Provisions of the admission will be outlined in the admission letter.

International students must have a minimum total score of 89 on the TEOFL iBT with the following minimum section requirements:

- Reading 18
- Speaking 26
- Listening 21
- Writing 24

In addition to the above requirements, all applicants must meet the following requirements:

- Writing proficiency as demonstrated by a one-page letter of intent.
- Three faculty and/or professional recommendations; recommendation forms should document applicant’s potential and/or effectiveness in specialization area and/or professional performance.
- Twelve semester hours of credit in courses related to normal development and the sciences related to the use of speech, hearing, and language; three credits in speech pathology; three credits in language disorders; six credits in audiology, including three credits in aural rehabilitation; three credits in augmentative and alternative communication; 25 clinical observation hours; three credits in statistics; three credits in behavioral/social sciences; three credits in biological sciences; three credits in physical sciences; and three credits in mathematics. Students may make up undergraduate deficiencies.

Degree Requirements

GENERAL REGULATIONS AND PROCEDURES

Advisement. Upon acceptance into the program, students will be assigned to a departmental advisor. The student and his or her advisor will plan a program of study. This plan will be filed and maintained in the student’s academic file. Students must meet with their academic advisor every semester to pre-register for courses.

Grades. An average grade of “B” (3.0/4.0) is required.

Graduate Courses. Graduate courses are numbered in the 500s. Some courses open to undergraduates (400 numbers) may be taken for graduate credit by permission of the student’s advisor. A maximum of six credits at the 400-level may be taken for graduate credit and applied toward a graduate degree. Please note that 400-level courses taken for undergraduate credit cannot be repeated for graduate credit.

SPECIFIC REQUIREMENTS

- The student must fulfill all general requirements for the degree and complete a minimum of 50 semester hours of credit for the degree.
- The graduate student majoring in speech language pathology will complete a minimum of 38 credits in communication sciences and disorders courses, including CSD 500, 505, 510, 512, 513, 520, 525, 530, 535, 540, 550, 554, 589, and 592. Students also must complete 12 credits of CSD 422/522 externship.

Options. Thesis, research, and academic programs are available. The decision as to whether a given student shall follow one program or the other rests with the department, as it considers the recommendations of the advisor and the request of the student. The student will complete an approved program under one of the following options:

Thesis Option: Fifty-three semester hours, including six credits in CSD 590. After the completion of a satisfactory thesis, the candidate will be asked to make an oral defense of this thesis before a faculty committee.

Research Option: Fifty semester hours, including three credits in CSD 590. This option does not require a thesis, but does require a research paper or project.

Academic: Fifty semester hours. To complete the degree:

- Clinical proficiency must be demonstrated.
- Two externships in a clinic and/or public school are necessary to satisfactorily complete the clinic clock hours required for the degree. Students must have a cumulative QPA of 3.00, must be in good academic standing, and must be making satisfactory progress toward the degree to be permitted to enroll in the externship program.
- Academic and clinical practicum requirements for the Certificate of Clinical Competency in Speech-Language Pathology of the American Speech-Language-Hearing Association must be fulfilled.
- Students who wish to obtain a Pennsylvania Teaching Certificate for Speech and Language Impaired must obtain a master’s degree in speech language pathology, must complete an externship in the public schools, and must complete CSD 554: Professional Practicum or have had a commensurate course. In addition, the student must pass all Praxis Series Tests required by the Pennsylvania Department of Education. Applications for these tests can be obtained at www.ets.org/praxis.

Placement

The faculty and the university’s Career Services Center assist graduates of the program in finding professional positions in public and private schools, colleges and universities, hospitals, research centers, health departments, clinical service centers, industry, or private practice. Graduates of the program have historically enjoyed excellent professional placement.

Graduate Assistantships

A number of graduate assistantships and other forms of financial aid are available. Individuals who want to be considered for financial assistance should so indicate at the time of application.

Externship

Six-credit externships are available in a wide variety of environments to augment the classroom experiences and broaden clinical experiences. Students must complete two six-credit externships.

Physical Facilities

The academic component of the department is housed in the first floor of the Keeling Health Center. Facilities include classrooms, a speech science/anatomy and physiology lab, a microcomputer lab, a library which includes a large variety of videotape resources, a student study area, and departmental and faculty offices.

An independent Speech and Hearing Clinic is located on the ground floor of the Keeling Health Center and includes individual and group clinic rooms, a conference and seminar room, an audiological suite, a clinical instrumentation laboratory, a student study area, a reception area, videotaping facilities, and a 10-station closed circuit television system.

Communication Sciences and Disorders Courses

- CSD 422/522:** *CLINICAL EXTERNSHIP* **6 or 12 s.h.**
Supervised observation of and participation in school and/or clinic environments. Prerequisite: CSD 540.
- CSD 472:** *SEMINAR IN SPEECH SCIENCE* **3 s.h.**
Begins with a review of the speech mechanism as a servosystem and transducer and basic knowledge of the physics of sound. Focuses on the concept that the speech mechanism is a chain of events physiologically, acoustically, and perceptually. Examines each link in this chain of events in terms of basic knowledge, pertinent research, and each link's contribution to the speech chain as a whole. Prerequisite: CSD 156.
- CSD 500:** *APHASIA* **3 s.h.**
A comprehensive study of the neuroanatomical implications related to acquired aphasia (dysphasia) in adulthood, although study of the symptoms and treatment of both sensory states and motor disturbances in aphasia is made. The current literature is reviewed and facilities are investigated. Opportunities are provided for the student to participate in individual and group therapy, and for visits to centers where these types of problems are diagnosed and treated. Guidance and counseling are provided to design an independent study in this area.
- CSD 505:** *ARTICULATORY AND PHONOLOGICAL DISORDERS IN CHILDREN* **3 s.h.**
Articulatory and phonological features of the American English sound system are examined in relation to other developing linguistic functions. The assessment of disordered articulatory and phonological behavior is stressed, and differential diagnosis is emphasized. Based upon several traditional and current theoretical models, possibilities for therapeutic interventions are presented.
- CSD 510:** *SEMINAR IN NEUROPATHOLOGY* **3 s.h.**
A comprehensive study of pathologies of the central nervous system. Methods for identifying and treating speech, language, and communication problems associated with progressive and non-progressive neurological disorders are explored. Neuropathologies studied include dementia, syndromes associated with right-hemisphere lesions, and deficits subsequent to closed-head injury. A unit on normal swallow and dysphagia is included in the course. Opportunity will be provided for independent investigation and clinical participation.
- CSD 512:** *CLINICAL PRACTICE I* **1 s.h.**
Course entails practice, under supervision, in assessment and management of individuals with disorders of speech language or hearing. Course can be repeated for up to four credits; additional credits would count as elective credit.
- CSD 513:** *COMMUNICATION DISORDERS IN MULTICULTURAL POPULATIONS* **1 s.h.**
Emphasizes nature and treatment of the communication disorders in culturally and linguistically diverse populations. The scope of practice and role of speech-language pathologists with bilingual/bicultural clients with and without speech and language disorders will be addressed.
- CSD 515:** *MAXILLOFACIAL ANOMALIES* **3 s.h.**
A comprehensive study of clinical diagnosis and treatment of patients with communicative disorders related to clefting and/or associated syndromes. Current research regarding anatomy and physiology of the palate and velopharyngeal structures for speech production is detailed. The genetics of clefting and associated syndromes is discussed. Special attention is directed to early growth and development of infants with clefts. Opportunities for observation of a craniofacial team multidisciplinary evaluations and team planning are provided in medical settings.
- CSD 520:** *LANGUAGE DISORDERS IN CHILDREN* **3 s.h.**
Models of the language function with their justifications are identified and critically analyzed. A review of normal language development is included to provide comparison with deviations. Diagnostic procedures utilized with language disorders in children are investigated; therapeutic means to influence them will be presented. Differential diagnostic specifics of certain language disorders such as those associated with deafness, autism, mental retardation, and language learning disabilities are included.

- CSD 525:** *STUTTERING* **3 s.h.**
Emphasizes investigation of the major theories and therapies of stuttering. Theories of etiology and of development of stuttering are included. The development of an understanding of stuttering behavior and similar speech behavior is included. Management strategies and therapies are also investigated.
- CSD 530:** *VOICE* **3 s.h.**
Includes the study of human voice and its manifestations across the life span. Students will be acquainted with new developments, issues, and trends that cover the entire spectrum of voice perception and production, including vocal development and life span changes, and the continuum of voice production from disorders through superior performance. Focus will include pathophysiology of disorders, instrumental and noninstrumental assessment, interdisciplinary team management, and treatment.
- CSD 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 534:** *OTOLARYNGOLOGY* **1 s.h.**
An introduction to the profession of otolaryngology. The course is taught by a board-certified physician and offered once a year.
- CSD 535:** *AUDIOLOGY SEMINAR* **3 s.h.**
The course is divided into two three-credit seminars. The first covers etiologies of hearing loss and disorders of the central auditory system, the effects of hearing loss on communication, diagnosis, and clinical methods. The second covers aural rehabilitation procedures.
- CSD 540:** *CLINICAL PRACTICE* **3 or 6 s.h.**
This course entails practice, under supervision, in applying theory to the assessment and management of individuals from preschool through adulthood having significant disorders of speech, hearing, or language. The clinical experience is relatively independent in the assessment, organizing, and carrying out of effective plans of therapy. The student should demonstrate an interdisciplinary approach and be able to generalize on the area of the disorder treated, as well as deal appropriately with the specific clients treated.
- CSD 550:** *MOTOR SPEECH DISORDERS* **3 s.h.**
Explores the causes, nature, and dynamics of both developmental and acquired forms of the motor speech disorders of apraxia and dysarthria. The specific nature of speech disturbances associated with lesions of the motor system and current diagnostic protocols and management strategies associated with each identified.
- CSD 554:** *PROFESSIONAL PRACTICUM* **3 s.h.**
Explores current issues and trends in the practice of speech-language pathology. Includes licensure, certification, and specialty recognition. Emphasizes ethical/legal restrictions and obligations that influence professional practitioners.
- CSD 560:** *COUNSELING IN COMMUNICATION DISORDERS* **3 s.h.**
Emphasizes the application of counseling strategies in the administration of diagnostic and therapeutic services as they relate to the field of communication disorders. Addresses counseling strategies relative to the nature of the communicative disorder and cultural background of the client. Annually.
- CSD/SPED 575:** *AUGMENTATIVE AND ALTERNATIVE COMMUNICATION* **3 s.h.**
Introduces students to various augmentative/alternative communication systems prevalent in the field. Discusses current and comprehensive information relative to type of disorder, diagnosis, and treatment. Emphasizes the application of unique criteria in diagnostics and the administration of competent and flexible management strategies in rehabilitation.
- CSD 589:** *RESEARCH METHODS IN COMMUNICATION DISORDERS* **3 s.h.**
Research literature and methods in communication disorders with an emphasis on research design and application.
- CSD 590:** *RESEARCH* **3 or 6 s.h.**
Students may complete a study in speech or language pathology and audiology or related areas under the supervision of a staff member. Students may select the thesis option in which six credits are required. Students may select the research option in which three or six credits culminate in a written report presented to the faculty advisor. Types of investigations which might be completed are original studies, comprehensive literature reviews, replication of studies, or completion of a portion of a larger study. Students must fill out independent study forms with their research advisor before registering for CSD 590.
- CSD 592:** *DYSPHAGIA* **3 s.h.**
Presents an introduction to swallowing disorders including basic terminology, anatomical and physiological etiologies, and current assessment and management procedures, with special attention to laryngectomized and tracheotomized patients. Discusses the competencies, responsibilities, and roles of the speech pathologist in various clinical settings, as well as risk factors involved in patient care. Provides observations and experiential learning situations.
- CSD 598:** *SPECIAL TOPICS* **1-6 s.h.**
Topics in various areas of speech pathology and audiology. The format used will be selected by the professor as most suitable to the study. The course may be offered on request of students, subject to the availability of staff. Enrollment by consent of the instructor. On demand.
- CSD 599:** *INDEPENDENT STUDIES IN COMMUNICATION SCIENCES AND DISORDERS* **1-3 s.h.**
Designed to provide students with an opportunity to explore an area of special need or interest in speech pathology and audiology in depth under the supervision of a member of the department. Students must develop a proposed study plan and secure the approval of the proposed director and department chair prior to registration. Repeatable for a maximum of 6 semester hours.



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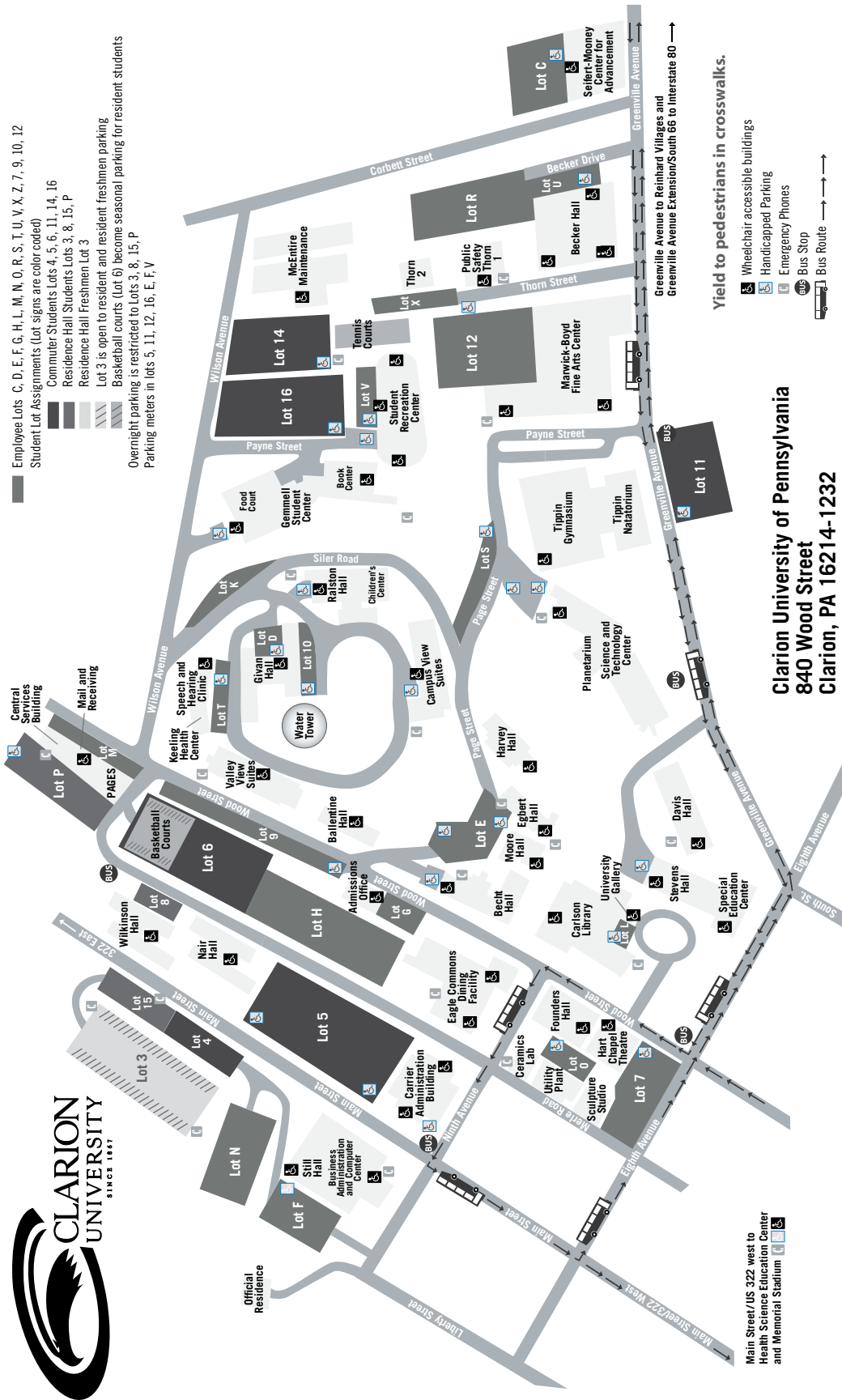
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CLARION CAMPUS FACILITIES

ADMISSIONS BUILDING, located on Wood Street, houses Admissions operations.

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 and the Computer Information Science departments.

CAMPUS VIEW SUITES is on top of the hill and offers kitchen and living room areas in each unit (two to four students per unit).

CARLSON LIBRARY is on the central campus just off Wood Street. 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.

CENTER FOR ADVANCEMENT OF CLARION UNIVERSITY, situated at the corner of Greenville Avenue and Corbett Street, houses the offices of alumni development and the Clarion University Foundation, Inc.

CENTRAL SERVICES, located on Wood Street, houses Publication Offices, duplicating center and print shop, and mailroom operations.

DAVIS HALL, on Greenville Avenue, has classrooms and offices for the English Department and the Modern Languages Department.

EAGLE COMMONS DINING FACILITY, located at the corner of Ninth and Wood Streets, seats 530 and offers a variety of food styles. The lower level features a Starbucks and a meeting room which can hold up to 100 visitors.

EGBERT HALL is on the central campus behind Carlson Library. It has administrative offices for the vice president for student affairs and staff, the Department of Counseling, the Office of Financial Aid, Career Services, and the Housing Office.

FOUNDERS HALL is situated at the corner of Wood and Ninth and houses classrooms and a computer laboratory for the History Department and the Political Science, Sociology, and Philosophy Department as well as laboratories for the Anthropology program and studios for the Art Department. Offices for the Dean of Arts and Sciences are on the second floor.

GIVAN RESIDENCE HALL, situated on the hill behind Chandler Dining Hall, houses 250 women.

HART CHAPEL THEATRE is located on Wood Street and Eighth Avenue.

HARVEY HALL is on center campus and houses offices and classrooms for the Psychology Department and Women's Studies program.

HAZEL SANDFORD ART GALLERY is located on the Greenville Avenue side of the Carlson Library. The permanent collection covers all media, with special emphasis in photography, prints, artist's books, and ceramics. Exhibitions are scheduled throughout the academic year as well as summer sessions with regular gallery hours weekdays and Sundays.

KEELING HEALTH SERVICES CENTER, off Wilson Avenue behind Givan Hall, has modern clinical and infirmary facilities located on the first floor. The Speech Pathology and Audiology Diagnostic Center is located on the ground floor. The Speech Pathology and Audiology Department is also located on the first floor.

MARWICK-BOYD FINE ARTS CENTER, which stands at the south corner of Payne Street and Greenville Avenue, provides a 1,600-seat auditorium, Little Theatre, Sandford Art Gallery, classrooms, studios, multimedia studio, laboratories, and office and exhibit areas for Art, Music, and Speech and Theatre Departments.

MCENTIRE MAINTENANCE BUILDING on Wilson Avenue south of Payne Street, is the center for physical plant maintenance, the motor pool, and maintenance shops.

MOORE HALL, east of Carlson Library, serves as a reception and meeting facility.

NAIR RESIDENCE HALL provides housing for 450 students and is located on Main Street.

RALSTON RESIDENCE HALL houses 160 students and is situated on the hill above Gemmell Student Complex. The **Earl R. Siler Children's Learning Center**, featuring a day care center for children of students and employees, is located on the ground floor. The **Center for Academic Enrichment** is located on the first floor.

RECREATION CENTER, a facility opened in 1999, is located on Payne Street. It contains basketball courts, a running track, a fitness center, and a climbing wall.

REIMER STUDENT CENTER/JAMES GEMMELL STUDENT COMPLEX, located at the north corner of Wilson Avenue and Payne Street, provides offices for student government and student activities personnel. Also housed in this area are the bookstore, snack bar, meeting rooms, and other recreation areas for students. There is also a multi-purpose room.

SCIENCE AND TECHNOLOGY CENTER AND PLANETARIUM between Greenville Avenue and Harvey Hall, provides modern classrooms, laboratories, and offices for the Departments of Biology, Chemistry, AGES, and Mathematics; a 250-seat lecture hall; and a planetarium.

SPECIAL EDUCATION CENTER, at the corner of Eighth and Greenville, houses the reception area of the Educational Appraisal Clinic and therapy rooms, along with some faculty offices and classrooms.

STEVENS HALL, off Greenville Avenue, provides classrooms and faculty offices for education and human services programs and offices for the College of Education and Human Services.

STILL HALL BUSINESS ADMINISTRATION AND THE LEWIS COMPUTER CENTER are in a single building on the north campus at Main Street and Ninth Avenue housing the information center, computing services, the Office of the College of Business Administration, and the Departments of Accountancy, Administrative Science, Economics, Finance/Real Estate, and Marketing.


THORN HOUSES 1 AND 2, located on Thorn Street, house the Public Safety Department (1) and plant services, facilities planning, and purchasing operation (2).

TIPPIN GYMNASIUM-NATATORIUM stands at the north center of Payne Street and Greenville Avenue. It houses classrooms, offices, and gym areas for the Health and Physical Education Department, a 3,600-seat arena for varsity sports, and a natatorium.




VALLEY VIEW VIEW SUITES is located on Wood Street and offers kitchen and living room areas in each unit (two to four students per unit).

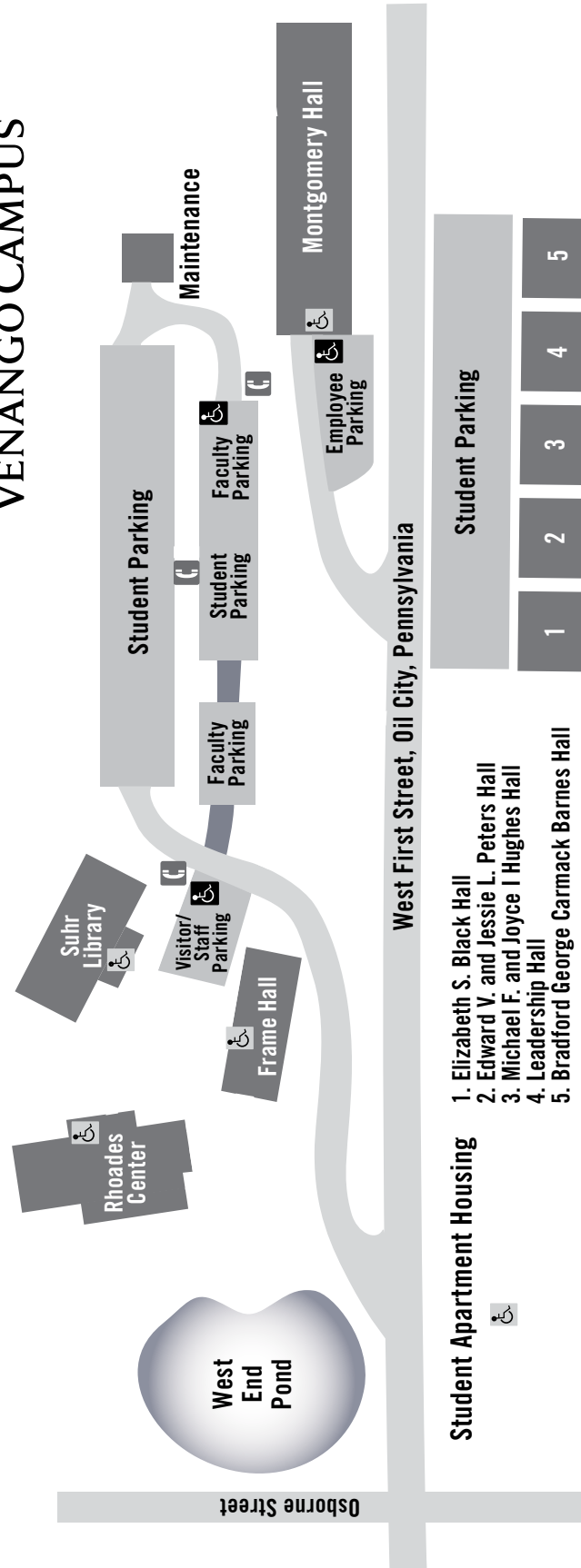
WILKINSON RESIDENCE HALL houses 450 students on the Main Street area of the campus. The basement houses offices for the Clarion Alliance for Telecommunications Services.

Venango Campus
 Clarion University of Pennsylvania
 1801 West First Street
 Oil City, PA 16301-3297



VENANGO CAMPUS

-  Handicap Parking
-  Wheelchair Accessible Building
-  Emergency Phones



Student Apartment Housing

1. Elizabeth S. Black Hall
2. Edward V. and Jessie L. Peters Hall
3. Michael F. and Joyce I Hughes Hall
4. Leadership Hall
5. Bradford George Carmack Barnes Hall





VENANGO CAMPUS FACILITIES

RICHARD C. FRAME HALL, the original building, contains the administrative office, Admissions and Financial Aid, Career Services, Continuing Education, Marketing and University Relations, AND classrooms.

ROBERT W. RHOADES STUDENT CENTER houses Student Affairs and provides student lounge and recreation facilities, a gymnasium, an auditorium-theatre, a bookstore, a fitness center, and food services.

THE CHARLES L. SUHR LIBRARY BUILDING houses the library, study facilities, faculty offices, the Department of Applied Technology, and the Barbara Morgan Harvey Center for the Study of Oil Heritage.

MONTGOMERY HALL is a modern classroom and office building which houses the School of Nursing and Allied Health, the computer laboratory, the Learning Support Center, interactive video classrooms, The Writing Center, and faculty offices.

ELIZABETH S. BLACK HALL, EDWARD V. & JESSIE L. PETERS HALL, MICHAEL F. AND JOYCE I. HUGHES HALL, LEADERSHIP HALL, AND BRADFORD GEORGE CARMACK BARNES HALL are attractive, upscale apartment buildings offering students a private bedroom and a semi-private bathroom with shared kitchen facilities and living and dining areas. Each apartment is fully furnished and houses four students.