

CLARION UNIVERSITY

2015-2016

# GRADUATE CATALOG



COURAGEOUS. *confident.* **CLARION.**

**THIS PAGE WAS  
LEFT BLANK  
INTENTIONALLY**

# **GRADUATE CATALOG**

**2015-2016**

**CLARION UNIVERSITY OF PENNSYLVANIA**  
Clarion, Pennsylvania 16214-1232  
814-393-2000  
[www.clarion.edu](http://www.clarion.edu)



## **Accreditations, Approvals, Certifications, Affiliations and Registrations**

- AACSB International—The Association to Advance Collegiate Schools of Business
  - Bachelor of Science in Business Administration and Master of Business Administration programs
- Accreditation Association for Ambulatory Health Care
  - Keeling Student Health Center
- Accreditation Commission for Education in Nursing, Inc. (ACEN)
  - Associate Degree Program
  - Baccalaureate Degree Program
  - Master’s Degree Program
  - Doctoral Degree Program
- American Bar Association (ABA) (approvals)
  - Bachelor and Associate Paralegal Studies
  - Letters of Completion in Paralegal Studies
  - B.S., Rehabilitative Sciences, Courts and Community Services concentration
- American Chemical Society
  - B.S. Chemistry (approved)
- American Library Association (ALA)
  - Master of Science in Library Science
- Association of Small Business Development Centers (ASBDC)
  - Small Business Development Center
- Association of Technology, Management and Applied Engineering
  - A.A.S. in Administration Technology
  - A.A.S. in Industrial Technology
  - A.A.S. in Technology Leadership
- Certified Financial Planner Board of Standards, Inc.
  - B.S. Business Administration
- College Reading and Learning Association (CRLA)
  - Writing Center Tutoring Program (certified)
  - Center for Student Success Tutoring Program (certified)
  - Venango College/Academic Resource Center (certified)
- Council for Exceptional Children (CEC)
  - Special Education
- Council for Standards in Human Service Education
  - Bachelor and Associate Human Services
- Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA)  
of the American Speech Language Hearing Association
  - Master’s Degree in Speech Language Pathology
- Council on Rehabilitation Education (CORE)
  - A.S. Rehabilitative Services
  - B.S. Rehabilitative Science
- International Association of Counseling Services Inc. (IACS)
  - Department of Counseling Services
- International Reading Association (IRA)
  - Reading Specialist

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)  
Early Childhood Program

National Association of Schools of Art and Design (NASAD)  
BA in Art; BFA in Art

National Council for Accreditation of Coaching Education (NCACE)  
Coaching Education Program

National Council for Accreditation of Teacher Education (NCATE)  
School of Education

National Council for Middle Level Education (NMSA)  
Middle Level Programs

National Council for the Social Studies (NCSS)  
Secondary Social Studies

National Council of Teachers of English (NCTE)  
Secondary English

National Council of Teachers of Mathematics (NCTM)  
Secondary Mathematics

National Science Teachers Association (NSTA)  
Secondary Sciences

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

**CLARION UNIVERSITY**  
**ACADEMIC CALENDAR 2015-16**

(Subject to change without notice)

**Fall Semester 2015**

Classes begin – 8 a.m. ....	Monday, August 24
Labor Day Holiday .....	Monday, September 7
Mid-semester break begins – 10 p.m. ....	Thursday, October 1
Mid-semester break ends – 8 a.m. ....	Monday, October 5
Friday classes meet in place of Tuesday classes .....	Tuesday, November 24
Thanksgiving holiday begins – 10 p.m. ....	Tuesday, November 24
Thanksgiving holiday ends - 8 a.m. ....	Monday, November 30
Classes end – 10 p.m. ....	Friday, December 4
Final examination period begins .....	Monday, December 7
Final examination period ends – 10 p.m. ....	Friday, December 11
Semester ends – 10 p.m. ....	Friday, December 11
Winter Commencement .....	Saturday, December 12
Semester grades due from faculty .....	Wednesday, December 16

**Winter Intersession 2015**

Classes begin .....	Monday, December 14
Final exams .....	Wednesday, January 13
Semester grades due from faculty – 12 p.m. ....	Friday, January 15

**Spring Semester 2016**

Classes begin – 8 a.m. ....	Tuesday, January 19
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 periods ends – 10 p.m. ....	Friday, May 6
Semester ends – 10 p.m. ....	Friday, May 6
Spring Commencement .....	Saturday, May 7
Semester grades due from faculty – 12 p.m. ....	Wednesday, May 11

**Summer Sessions 2016**

Session 1 .....	May 9 – 26
Session 2 .....	June 6 – July 8
Session 3 .....	July 11 – August 11

**CLARION UNIVERSITY**  
**ACADEMIC CALENDAR 2016-17**

(Subject to change without notice)

**Fall Semester 2016**

Classes begin - 8 a.m. ....	Monday, August 29
Labor Day Holiday .....	Monday, September 5
Mid-semester break begins – 10 p.m. ....	Thursday, September 29
Mid-semester break ends – 8 a.m. ....	Monday, October 3
Friday classes meet in place of Tuesday classes .....	Tuesday, November 22
Thanksgiving holiday begins – 10 p.m. ....	Tuesday, November 22
Thanksgiving holiday ends – 8 a.m. ....	Monday, November 28
Classes end – 10 p.m. ....	Friday, December 9
Final examination period begins .....	Monday, December 12
Final examination period ends – 10 p.m. ....	Friday, December 16
Semester ends – 10 p.m. ....	Friday, December 16
Winter Commencement .....	Saturday, December 17
Semester grades due from faculty – 12 p.m. ....	Wednesday, December 21

**Winter Intersession**

Classes begin.....	Monday, December 19
Final Exams .....	Wednesday, January 18
Semester grades due from faculty – 12 p.m. ....	Friday, January 20

**Spring Semester 2017**

Classes begin - 8 a.m. ....	Monday, January 23
Winter holiday begins – 10 p.m. ....	Friday, March 10
Winter holiday ends – 8 a.m. ....	Monday, March 20
Classes end – 10 p.m. ....	Friday, May 5
Final examination period begins – 8. a.m. ....	Monday, May 8
Final examination period ends – 10 p.m. ....	Friday, May 12
Semester ends – 10 p.m. ....	Friday, May 12
Spring Commencement.....	Saturday, May 13
Semester grades due from faculty – 12 p.m. ....	Wednesday, May 17

**Summer Sessions – 2017**

Session 1 .....	May 15 – June 2
Session 2 .....	June 5 – July 7
Session 3 .....	July 10 – August 10



## Table of Contents

Accreditations . . . . .	iii
Academic Calendar . . . . .	iv
General Information . . . . .	1
Graduate Study . . . . .	4
Admission Procedures . . . . .	5
Academic Policies and Procedures . . . . .	9
Clarion University Online Programs . . . . .	14
Student Financial Services (Billing and Financial Aid) . . . . .	14
Scholarships for Graduate Students . . . . .	17
Student Support Services . . . . .	18
Master of Business Administration . . . . .	21
Master of Education Degree in Education . . . . .	24
Online Master of Science Degree in Applied Data Analytics . . . . .	28
Master of Science Degree in Library Science . . . . .	30
Master of Science Degree in Mass Media Arts and Journalism . . . . .	35
Master of Science in Nursing Degree . . . . .	38
Doctor of Nursing Practice . . . . .	41
Graduate Studies in Special Education . . . . .	44
Online Master of Science Degree in Rehabilitative Sciences . . . . .	48
Master of Science Degree in Speech Language Pathology . . . . .	50
Graduate Course Descriptions . . . . .	53
Index . . . . .	86
Campus Maps and Facilities . . . . .	88-90

# DIVISION OF GRADUATE PROGRAMS

Website: [www.clarion.edu/admissions/graduate](http://www.clarion.edu/admissions/graduate)

## Graduate Degree Programs

Clarion University of Pennsylvania offers graduate-level programs leading to the Master of Business Administration, Master of Education, Master of Science in Library Science, Master of Science in Mass Media Arts and Journalism, Master of Science in Nursing, Master of Science in Rehabilitative Sciences, Master of Science in Speech Language Pathology and Doctorate of Nursing Practice degrees. The Master of Science in Library Science program is accredited by the American Library Association; the Master of Science program in Speech Language Pathology is accredited by the Council on Academic Accreditation of the American Speech-Language-Hearing Association; the Master of Business Administration program is accredited by AACSB International—The Association to Advance Collegiate Schools of Business; and the Master of Science in Nursing program is accredited by the Accreditation Commission for Education in Nursing, Inc. (ACEN).

- **Doctor of Nursing Practice**—Online
- **Master of Business Administration**—Campus and Online
- **Master of Education in Education**
  - Curriculum and Instruction Concentration—Online
  - Early Childhood Concentration—Online
  - Mathematics Education Concentration—Online
  - Reading Concentration—Blended/Hybrid (one summer residency)
  - Science Concentration—Online
  - Special Education Concentration—Blended/Hybrid
  - Technology Concentration—Online
- **Master of Science in Applied Data Analytics**—Online
- **Master of Science in Library Science in Information and Library Science**
  - Information Access Concentration—Online
  - Local and Archival Studies Concentration—Online
  - Management of Information Agencies Concentration—Online
  - Reference and User Services Concentration—Online
  - School Library Media—Online
- **Master of Science in Mass Media Arts and Journalism**—Online
- **Master of Science in Rehabilitative Sciences**—Online
- **Master of Science in Special Education**—Online
- **Master of Science in Special Education Pre-K–8/7–12 with Reading Concentration**
- **Master of Science in Speech Language Pathology**—Campus
- **Master of Science in Nursing**
  - Family Nurse Practitioner Concentration—Online except labs and clinical
- **Certifications**
  - Early Childhood—Online
  - Post Masters Family Nurse Practitioner—Online except labs and clinical
  - Reading Specialist Certification—Blended/Hybrid (one summer residency)
- **Certificates**
  - Advanced Studies in Library Science—Online
  - Gifted and Talented Education—Online
  - Public Relations—Online
- **Letters of Completion**
  - Autism Spectrum Disorders
  - Online Instruction Endorsement—Online

For more detailed information on graduate curricula and courses, refer to the *Graduate Catalog* or online at [www.clarion.edu/admissions/graduate](http://www.clarion.edu/admissions/graduate) or [www.clarion.edu/catalog](http://www.clarion.edu/catalog).



# GENERAL INFORMATION

## **Mission**

Clarion University of Pennsylvania provides transformative, life-long learning opportunities through innovative, nationally recognized programs delivered in inclusive, student-centered environments.

## **Vision**

Clarion University will be a leader in high impact educational practices that benefit students, employers, and community partners.

## **Core Values**

Students, faculty, staff and alumni of Clarion University value learning, accomplishment, encouragement, diversity, civility, civic engagement and public higher education.

## **Graduate Programs Mission**

Clarion University recognizes the role that a high quality graduate program plays in maintaining excellence in the institution. Clarion University maintains graduate programs that support 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, gender identity, 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 inquiries regarding equal opportunity, Title IX or services and facility accessibility to: Assistant to the President for Social Equity/Title IX and 504/ADA Coordinator, Clarion University of Pennsylvania, 207 Carrier Administration Building 16214-1232. Email [jgant@clarion.edu](mailto:jgant@clarion.edu) or phone 814-393-2109. Inquiries may also be directed to the Director of the Office for Civil Rights, Department of Education, 330 Independence Avenue, SW, Washington, DC 20201.

## Faculty Reporting Requirements under Title IX

Clarion University and its faculty are committed to assuring a safe and productive educational environment for all students. In order to meet this commitment and to comply with Title IX of the Education Amendments of 1972 and guidance from the Office for Civil Rights, the University requires faculty members to report incidents of sexual violence shared by students to the University's Title IX Coordinator. The only exceptions to the faculty member's reporting obligation are when incidents of sexual violence are communicated by a student during a classroom discussion, in a writing assignment for a class, or as part of a University-approved research project. Faculty members are obligated to report sexual violence or any other abuse of a student who was, or is, a child (a person under 18 years of age) when the abuse allegedly occurred to the person designated in the University protection of minors policy.

Information regarding the reporting of sexual violence and the resources that are available to victims of sexual violence is set forth at: <http://www.clarion.edu/student-life/student-affairs/conduct-policies-and-judicial-services/>.

### Correspondence

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

Graduate Programs  
Clarion University of Pennsylvania  
840 Wood Street  
Clarion, PA 16214-1232  
Telephone: 814-393-2337

### Clarion Campus

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

Today, Clarion University is a multi-purpose institution with an enrollment of more than 5,500 students offering associate's degrees in 11 areas; more than 62 baccalaureate programs leading to degrees in the arts, business, fine arts, nursing, and sciences; 10 graduate programs leading to master's degrees in business administration, education, library science, nursing, and the sciences; and one doctoral program in nursing. Clarion University is recognized by 25 accrediting agencies.



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

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



## Venango Campus

Venango Campus, 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.

The campus houses Venango College and offers a personal and challenging academic experience with small classes that maximize student-faculty interaction and student success. Programs and services are designed to meet a wide range of needs and are



offered with the flexibility that is required for a diverse community of learners. Many academic programs utilize partnerships with medical, business, industrial, and educational organizations that bring real-world, technical expertise and resources into its curriculum.

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

Students and faculty utilize the latest in electronically enhanced learning and teaching tools and the fully wireless campus provides students the flexibility of accessing university resources anywhere on campus. A wide range of cultural events and activities, including a comprehensive intramurals and outdoor recreation program and nationally competing club sports teams, offer students and community members opportunities for engagement and personal enrichment.

## Clarion Online

Clarion University, combines its academic tradition of excellence with online educational technology to provide programs that are—*accredited and accessible anywhere*. Clarion has been offering classes off the Clarion Campus using a variety of technologies since 1996. There are currently several undergraduate, graduate and doctorate degree and certificate programs available fully online. The courses required to support these degrees meet the same curricular and instructional standards and are taught by the same faculty as classes delivered on the Clarion Campus. As a result, the degree you earn through the online programs 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 offerings and online programs is available on the Web at [www.clarion.edu/online](http://www.clarion.edu/online).



# GRADUATE STUDY AT CLARION UNIVERSITY

## Eligibility for Admission

Individuals seeking regular full admission to a graduate program must meet the minimum admission requirements for Graduate Programs and any additional requirements of the program. To meet the minimum requirements for admission to the Graduate Programs 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 grade-point average (GPA) of 2.75/4.00 at the undergraduate level. Some programs require a higher undergraduate GPA. Please review the program

admission requirements listed elsewhere in this catalog.

Individuals not meeting the GPA requirement of a graduate program may be eligible for regular admission when the lower GPA 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 respective websites.

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



## 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 Programs 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 provisions 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.

### **Conditional Admission**

A conditional admission is provided to students, particularly international students, to enable them to apply for scholarships. It does not permit the student to enroll in classes or obtain a visa. It requires specific additional information providing proof of meeting all admissions requirements to be converted to a provisional or regular admission. Conditionally admitted students may be rejected upon review of their completed application.

### **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.

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 Graduate Programs.

## Admission Procedures

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

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

Routine admission policy requires that all graduate applicants submit:

1. a completed online 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 Programs 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. \$40 non-refundable application fee; and
5. a resume.

Some graduate programs require additional information or procedures.

\*Not required of non-degree students; two required for nursing applicants.

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 \$40 application fee must be submitted if you are applying to more than one program. All official documents must be submitted in a large envelope from the applicant. Following one semester of enrollment, if you want to change to another graduate program you must resubmit all application materials (including \$40 fee) as previously outlined. Applications will be reviewed only after all materials have been received.

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

The following deadlines apply to graduate applicants.\*

#### **Nursing applicants:**

To be fully considered for the limited number of seats in our competitive Nursing program, all materials must be in our graduate office by Oct. 1 prior to the fall start date for any given year. Clarion University operates on a rolling admissions basis which means that applications may be submitted and reviewed any time prior to the deadline. It is recommended that applications be submitted far enough in advance of the deadline to insure 'complete' status. Applications received after the Oct. 1 deadline may be considered for an interview for our wait list, or for acceptance to the following years class if qualified. All students will be notified of their status by March 1.

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

#### **Other programs**

**Fall:** July 15 — last date to complete an application file

**Spring:** December 1 — last date to complete an application file

**Summer:** April 15 — last date to complete an application file for Summer

\*International students must complete an application file by July 15 for the fall term or by November 15 for the spring term. 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:

Lynn Hepfl, International Student Advisor  
Office of International Programs  
Clarion University of Pennsylvania  
840 Wood Street  
Clarion, PA 16214-1232 U.S.A.  
intlprograms@clarion.edu



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 **by the specified deadline** 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](http://www.wes.org)) *or* Educational Credential Evaluators, Inc. (ECE) ([www.ece.org](http://www.ece.org))  
Applicants should request WES or ECE to forward evaluation results directly to the Clarion University Graduate Programs Office.
3. A minimum grade-point average (GPA) of 2.75/4.00 scale at the undergraduate level. Some programs require a higher undergraduate GPA. Please review the program admission requirements listed on the "Checklist for Completion of Graduate Application." Individuals not meeting the GPA requirement of a graduate program may be eligible for regular admission when the lower GPA 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 Graduate Programs.

4. Demonstrate English language proficiency. Acceptable evidence of proficiency is successful completion of Test of English as a Foreign Language (TOEFL) with a score of 550 (paper-based test), 213 (computer-based test), or 80 (Internet-based). Also a minimum International English Language Testing System (IELTS) score of 7.0 is acceptable. Speech language pathology applicants are required to submit minimum TOEFL scores of 573 (paper-based), 230 (computer-based), or 89 (Internet-based) with a breakdown of minimum scores of 18 in reading, 26 in speaking, 21 in listening and 24 in writing. Mass media arts and journalism (communication) applicants are required to submit minimum TOEFL scores of 600 (paper-based test), 250 (computer-based test), or 100 (Internet-based). A minimum IELTS score of 7.5 is acceptable for mass media arts and journalism (communication) and speech language pathology applicants. Clarion offers an Intensive English Program (IEP) and satisfactory completion of the program meets the university's English language proficiency requirement. As an ESL coop university, the 112-level Intensive English Program also meets the university's English language proficiency. Satisfactory completion of a bachelor's degree from an accredited U.S. university or college is also acceptable evidence of English language proficiency. Other evidence may be approved by the Graduate Programs 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. According to U. S. immigration regulations, no more than the equivalent of one on-line/distance education class or three credits per session may count toward the "full course of study" requirement.
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 "Health Insurance" on page 19.

## GENERAL POLICIES

### Student Information Updates

Students are responsible for providing the university with their current address, telephone, and other pertinent personal information. For current students, this information should be updated in your MyClarion Student Center.

Students are responsible for confirming their enrollment each term/session via MyClarion by the end of the drop/add period. If enrollment has not been confirmed by the student, their class(es) for the term/session will be dropped.

### Student Records

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

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

### Grade Release Policy

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

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

### Family Educational Rights And Privacy Act (FERPA) Notification Statement

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

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

The right to inspect and review the student's education records within 45 days of the day the university receives a request for access. Students should submit to the registrar, dean, chairperson, director or other appropriate university official written requests that identify the record(s) they wish to inspect. The university official will make



arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the university official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

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

They should write the university official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading. If the university decides not to amend the record as requested by the student, the university will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent. One exception, which permits disclosure without consent, is disclosure to school officials with legitimate educational interests. A school official is defined as a person employed by the university in an administrative, supervisory, academic

or support staff position (including law enforcement and health staff); a person or company with whom the university has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or assisting another school official in performing his or her tasks. The university uses contractors, volunteers, in-service providers to provide university services and functions. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

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

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

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

Family Policy Compliance Office  
U.S. Department of Education  
400 Maryland Avenue, SW  
Washington, DC 20202-4605

### **Directory Information:**

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

## **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.

### **Academic Standing**

All graduate students are expected to remain in good academic standing by maintaining a cumulative GPA of 3.0 on a 4.0 scale and earning no more than six semester hours of “C” or lower grades in graduate courses. Individual graduate programs may set higher standards for “good” academic standings.

#### **Probation:**

Students who earn more than six semester hours of grades of “C” or below or do not maintain a cumulative GPA of 3.0 are placed on probation. A student placed on probation automatically loses his or her graduate assistantship. A reapplication for an assistantship will be required once she or he has returned to “good” academic standing.

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. Failure to earn grades sufficient to be removed from probation will result in the student being dismissed from the graduate program in which she or he is enrolled.

#### **Removal from probation due to more than 6 hours of grades of “C” or below:**

The student could repeat coursework in which the original grade is “C” or below, a repeat course grade will replace the original grade for grade-point calculations. A maximum of six semester hours of credit may be repeated. Please note the following program specific policies:



- Library Science students receiving a grade of “C” or below in two courses are dismissed as a candidate.
- CSD students who are on probation must come up with a remediation plan to remove themselves from probation. This plan will come to the department through the student’s faculty advisor and must be approved.
- MBA Program excludes grades earned in foundation courses for the purpose of this policy.

#### **Removal from probation due to GPA below 3.0:**

The student should take additional graduate level courses in his/her program and earn grades sufficient to raise the cumulative GPA to 3.0 or above.

#### **Dismissal:**

Students who do not meet the conditions for removal of probation will be dismissed from their graduate program. After one semester of non-enrollment, the student may reapply to the program. If reaccepted, all conditions of probation apply and must be addressed in their first semester back.

Students on probation status or who have been dismissed in one program may apply to another graduate study program for consideration for regular full or provisional admission.

*Approved Graduate Council May 2013*

#### **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 by the department and dean. 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 dean (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 GPA 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. Credits earned as

part of another graduate degree from Clarion University or other regionally accredited institutions may be transferred into a Clarion graduate degree; no more than 30 percent of the total credits for the new degree may be transferred from credits that are part of a previously earned graduate 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 online.

#### **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 will be required to reapply before they can enroll. Information about eligibility to enroll in classes may be obtained from the Graduate Programs 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 and the dean of the college in which the student’s program resides.

#### **Graduation and Degree Conferral Policy**

Students must initiate an Application for Graduation to be considered a candidate for graduation. Applications are available on the Registrar’s Office website. Applications must be approved by the academic advisor, department chair and dean. Deadlines for submitting applications are available on the Registrar’s Office website. Details regarding the commencement ceremony can be found on the Commencement webpage.

Formal commencement exercises are held in December and May of each year. Participation in the December ceremony is limited to those degree candidates who will complete their degree requirements in fall or winter intersession. Participation in the May ceremony is limited to those degree candidates who will complete their degree requirements in the spring or summer.

Degrees are conferred six times annually – the last day of final exams for the fall semester, winter intersession, spring semester, first summer session, second summer session, and third summer session.

Students who have not successfully completed all degree requirements within 30 days after the last day of

final exams will not have their degree awarded until the degree conferral date for the term their requirements have been completed.

Students who do not successfully complete their degree requirements for the term are responsible for reactivating their application for graduation by notifying the Registrar's Office of their next anticipated date of graduation.

### **Simultaneous Degree Completion**

Graduate students seeking to complete two simultaneous graduate degrees will be required to complete at least 12 hours beyond the minimal credit requirements for the degree program with the most required credits.

**Post-Masters Students Returning for a Second Masters Degree:** Students need to complete an additional 15 credits (regardless of number of earned credits of the first masters degree) and complete degree requirements in effect at time of matriculation for second Masters degree.

### **Add/Drop**

Class schedules may be changed during the add/drop period. Courses may be added during the first week of classes during the fall and spring semesters. For a list of exact dates and deadlines for adding and dropping a course for all terms, please refer to the 'Calendars' link on the Registrar's Office webpage at [www.clarion.edu/registrar/calendar](http://www.clarion.edu/registrar/calendar)

A student seeking admission to a closed section should consult with the instructor or chairperson of the department that offers the course. Admission to a closed section requires the permission of the instructor or department chair and/or the dean of the college that offers the course.

Students may make changes to their schedule through their MyClarion account.

### **Graduate Credit Load**

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

A graduate student taking less than nine credits is considered a part-time student. The typical load for graduate students is nine to 12 credits during the fall and spring semesters.

Students who wish to enroll for more than 12 graduate credit hours must have the approval of the graduate program coordinator and the college dean.

### **400-Level Courses**

Not all 400-level courses can be taken for graduate credit. Students should consult with graduate program coordinators or the Registrar's 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.

### **Repeat Grade Policy**

Graduate students can repeat a single course only once. Graduate students are also limited to a maximum of two repeats across their program.

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

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

### **Withdrawals**

#### **Individual Course Withdrawal Policy**

All class withdrawals must be initiated by completing a class withdrawal form, which is signed by the student's advisor. If a withdrawal is not made through the Office of the Registrar, a failing grade may be recorded for the affected course(s). Classes a student drops during the period of drop/add will not appear on the student's record. Course withdrawals may be made between the second and tenth weeks of a regular semester or by the dates listed on the Registrar's calendar page for winter and summer sessions. Students are limited to 5 class withdrawals within their career.

Appeals for a late course withdrawal may be made by students to the Registrar for withdrawals due to documented extenuating circumstances such as illness or some other unavoidable occurrence. These appeals must be submitted in writing prior to the last day of classes and require approval of the instructor, advisor, and dean of the student's program. Ceasing to attend class does not constitute an official withdrawal. Students must officially withdraw from the course.

#### **Withdrawal From the University**

Students may withdraw from the university (all courses) through the last day of classes by notifying the Office of the Registrar in writing of his or her intention to withdraw and the reason for withdrawal. University withdrawals, which are recorded with grades of WX, are not included in the limit of five individual course withdrawals. If a withdrawal is not made by the deadline, a failing grade may be recorded for the affected course(s). Ceasing to attend classes does not constitute an official university withdrawal. Students must officially withdraw from the university.

Appeals to this procedure must be submitted by the student in writing to the Registrar no later than 30 days following the end of the semester for which the student is submitting the withdrawal. Appeals require review and approval by the Office of Academic Affairs. Contact Student Financial Services for financial implications of withdrawal.

### **Grading System**

A	excellent
B	good
C	satisfactory
D	poor
F	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

\* Becomes an F after one semester if not completed.

### **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. No credits, quality points or grades are assigned for audited courses. 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**

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

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

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

### **In Progress Grades**

The grade "IP" is given for thesis work at the graduate level that extends beyond the semester or term originally scheduled if the course is not completed. It implies satisfactory performance. The grade "IP" will not alter the GPA 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 419 Becht 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, 419 Becht 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 Administration Building, 814-393-2109.

### **Center for Academic Achievement**

The Center for Academic Achievement is available to students with disabilities who desire additional help in the form of academic advising, informational workshops, and assistance with study skills. Students interested in obtaining information about the program should contact the CAA program, 419 Becht Hall, 814-393-2347.

### **Clarion Online**

**Lynne M. Lander Fleisher, Director**

124 Becht Hall

Telephone: 814-393-2778

E-mail address: [lfleisher@clarion.edu](mailto:lfleisher@clarion.edu)

Website: [www.clarion.edu/online](http://www.clarion.edu/online)

Clarion University, combines its academic tradition of excellence with online educational technology to provide classes and programs that are—*accredited and accessible anywhere*. Information on the availability of specific degrees online is indicated under each of the degree program areas. A list of current course offerings and online undergraduate programs is available on the Web at [www.clarion.edu/online](http://www.clarion.edu/online).

### **Off-Campus Courses and Programs**

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



## **Student Financial Services (Billing and Financial Aid)**

Becht Hall, First Floor

Telephone: 1-800-672-7171, opt#2

Email Address: [stfinservice@clarion.edu](mailto:stfinservice@clarion.edu)

Website: [www.clarion.edu/finaid](http://www.clarion.edu/finaid)

### **Current Costs of Enrollment**

Students should refer to the Clarion University Student Financial Services (SFS) website at: [www.clarion.edu/finaid](http://www.clarion.edu/finaid) for current costs of enrollment and detailed billing/payment information.

### **Student Invoices**

**Student invoices (bills) are not mailed to students.**

Students can view and print their electronic invoices via the Student Service Center (<https://myclarion.clarion.edu>) approximately 30 days prior to the start of the semester. Students are billed each term (i.e. summer, fall, winter, and spring) and **payment is expected by the first day of class each semester.** Winter and summer session invoices are available approximately 10 days prior to the start of these sessions.

### **Monthly Payment Plan**

Clarion University offers an alternative to paying your bill in full via the interest-free monthly payment plan through Tuition Management Systems (TMS). There are 12-month and 10-month payment plan options available to choose from at <https://clarion.afford.com>. A small enrollment fee is the only cost, and no credit approval is required. Interested students may obtain additional information about the payment plan and other payment options at [www.clarion.edu/payments](http://www.clarion.edu/payments).

### **Financial Aid Refunds**

Refunds from excess financial aid are not available to students until after drop/add is over each semester. The quickest way to gain access to any financial aid refunds you may receive from excess financial aid disbursements is to sign up for direct deposit online on your MyClarion account. You can get step-by-step directions on how to do this at: [www.clarion.edu/myclariondoc](http://www.clarion.edu/myclariondoc).

### **Financial Aid Application**

Financial assistance is available to students in the form of scholarships, loans, and student employment. Clarion urges all students to complete a Free Application for Federal Student Aid (FAFSA) prior to May 1 each year via the federal website: [www.fafsa.ed.gov](http://www.fafsa.ed.gov). Please indicate Clarion's Title IV code (003318) on the FAFSA form.

### **Academic Year**

At Clarion University, an academic year is comprised of a fall and spring semester, during which time a full-time graduate student is expected to complete at least 18 credits. The period of time school is in session consists of 30 weeks of instruction.

### **Financial Aid Programs**

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

#### **Federal TEACH Grant**

Teacher Education Assistance for College and Higher Education (TEACH) grants are based on the program of study and cumulative grade point average (3.25 is required) rather than financial need. In order to qualify for this grant at Clarion, students must be enrolled in a bilingual education, foreign language, mathematics, reading specialist, science, or special education degree program.

Interested students should complete a TEACH Grant Preliminary Application available online at [www.clarion.edu/financialaidforms](http://www.clarion.edu/financialaidforms). Once approved for the grant, students must complete an annual Agreement To Serve document in which they agree to teach for at least four academic years within the first eight calendar years of completing their TEACH eligible degree. NOTE: TEACH recipients who fail to complete this service obligation will have their TEACH grants converted to interest-bearing Federal Direct Unsubsidized Stafford Loans. Interest will be assessed retroactive to the date the first TEACH grant disbursed to their account.

#### **Federal Perkins Loan Program**

Perkins is a need-based, campus-based loan program for students enrolled at least half-time who demonstrate considerable unmet need. Students must have the current year FAFSA form on file and must also complete a Perkins Loan Application, available in the SFS Office each year after April 15. Perkins loan amounts may vary, but \$1000 per semester is the maximum award for most Clarion students.

The five percent interest loan is non-interest bearing while the student is enrolled at least half-time at the university. Borrowers have a one-time-only 9-month "grace" period, during which no payment is required, after they leave Clarion. The standard repayment period of 10 years requires borrowers to make quarterly (four times per year) payments with interest accruing at five percent.

#### **Federal Direct Stafford Loan Program**

Stafford Loans provide a maximum of \$20,500 per academic year for eligible students. Graduate students cannot exceed an aggregate loan limit of \$138,500 for both undergraduate and graduate loans.

Students must have a current year FAFSA on file, as well as a Master Promissory Note (MPN) and Entrance





**Loan Counseling.** The one-time-only MPN and entrance counseling are completed online at [www.studentloans.gov](http://www.studentloans.gov).

Stafford loan interest rates vary by year and type of loan. However, there is a 9.5 percent maximum interest rate cap on all Direct Stafford Loan programs.

Repayment for Direct Stafford Loans begins six months after the student ceases at least half-time enrollment at the university. During this six month “grace” period, no payment is required. However, monthly repayments start at the end of the one-time-only grace period and extend over a 10-year repayment period. Loan deferments are available to eligible students--students should contact their federal loan servicer to obtain additional information if they experience financial hardships during their 10-year repayment period.

#### **Federal Direct GradPLUS Loans**

GradPLUS loans are available to graduate students and are not based on financial need. Students may choose to borrow up to their cost of education minus any other financial aid awarded for the year. There are no aggregate loan limits for this program.

Students must have a current year FAFSA on file and complete both a GradPLUS loan application and a GradPLUS loan Master Promissory Note (MPN) on the

[www.studentloans.gov](http://www.studentloans.gov) website. Eligible students must be enrolled at least half-time to qualify for this loan and demonstrate no adverse credit history in order to qualify for the loan.

GradPLUS loan interest rates may vary but there is a 10.5 percent maximum cap.

Students may request an in-school deferment during the GradPLUS application process. This permits them to waive the requirement to begin repayment no later than 60 days after the loan is fully disbursed to their account. Students have 10 years in which to repay the loan once their deferment expires and/or the loan is fully disbursed to the student.

#### **Private (Alternative) Loans**

Before applying for a private (alternative) loan, consider Federal Direct Student Loans first. Generally, they offer better terms and lower interest rates.

If you find that you need additional funding, do not wish to apply for federal financial aid, or are ineligible for federal aid, you may want to apply for a private loan. Some private loans are not subject to federal financial aid regulations, such as having a FAFSA on file, making satisfactory academic progress, completing federal verification, and they do not have limits on the amount borrowed based on the number of credits earned.

However, they are based on the credit-worthiness of the applicant and/or the cosigner.

Private lenders offer a variety of loan products to undergraduate, graduate, professional school, part-time, continuing education, and international students. In most cases, students can apply online. In some cases, the loans can be used to pay past due balances of educational costs. Additional information, as well as our private loan comparison tool through ELMSelect, can be found online at [www.clarion.edu/privateloans](http://www.clarion.edu/privateloans).

### **Clarion University Revolving Loan**

This loan fund may only be utilized for educational purposes (books, etc.) and is available to Clarion students who are enrolled in a degree program at least half-time (six credits) and do not currently have a financial hold on their account.

Students who wish to borrow money from this fund to purchase books at the University Book Store must complete a Promissory Note at the Book store within the first two weeks of the semester. Students who need funds for other educational related costs should contact the Director of Student Financial Services to request funds and/or complete a Promissory Note. Loan amounts may vary, but are typically restricted to no more than \$350.

The loan is interest-free but must be repaid in its entirety no later than 30 days from the date of issue. Financial aid funds can be utilized to cover this outstanding balance. If a borrower does not repay the loan within this time period, a registration hold will be placed on the student's account until such time as the loan balance is paid in full.

### **Part-Time Employment**

Employment is available to the extent that funds are provided by the federal government and the institution. The assignment of students to on- or off-campus positions is generally based on financial need. Students interested in student employment should log in to their Career Connections account at [www.clarion.edu/careerconnections](http://www.clarion.edu/careerconnections) to review employment opportunities.

All student employment programs require eligible students to maintain at least half-time enrollment (six credits) during the academic year. Participating students must be paid at least the current federal minimum wage rate and receive their pay on a bi-weekly basis.

### ***Federal Work-Study Program***

The university participates in the Federal Work-Study Program which permits students with unmet financial need to work while classes are in session. Eligible students must have a current year FAFSA on file. Participating students typically work no more than 10-15 hours per week (as determined by the employer) during the academic year.

### ***State (Institutional) Employment Program***

Students participating in this program do not need to demonstrate unmet financial need nor is a current

year FAFSA required. Hours are typically limited to no more than 10-15 hours per week during the academic year (as determined by the employer).

### ***Veterans' Benefits***

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, in the SFS Office, immediately after being accepted for admission to the university in order to secure additional instruction. This procedure is necessary to ensure students receive their monthly benefits.

### ***Conditions Which Accompany Financial Aid***

In order to continue receiving financial aid following initial enrollment at Clarion University of Pennsylvania, students must meet certain conditions each year. One such condition requires students to enroll at least part-time (six credits) for the federal aid programs. Also, all federal aid applicants must reapply for aid using the FAFSA form each year. Full-time graduate students may receive assistance from the federal Title IV programs for up to 150 percent of the published length of their educational program.

Federal aid regulations require students to maintain satisfactory academic progress (SAP). In order to demonstrate good SAP, students must successfully complete at least 67 percent of all cumulatively attempted credits to date, as measured on an annual basis. This percentage is calculated and reviewed each academic year at the end of the spring term, prior to the student's receipt of any additional federal financial aid monies for the future academic year.

Students, regardless of enrollment status, who fail to achieve a cumulative GPA of at least a 3.00 are not eligible to receive additional federal aid, even if they meet the 67 percent cumulative completion requirement.

### ***Appeal Procedure***

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

1. Write to the Student Financial Services Office (SFS), Clarion University, 840 Wood Street, Clarion, PA 16214, noting the denial and stating the reasons why financial aid should not be denied. NOTE: If the student is appealing a lack of satisfactory academic progress (SAP) determination, specific directions on the appeal process are available at [www.clarion.edu/sappolicy](http://www.clarion.edu/sappolicy).
2. SFS Office staff will review the denial in terms of information provided by the student.
3. Following the review, the SFS Office staff will inform the student of the status of the appeal (granted/declined).

### **Return of Federal Aid Monies due to University Withdrawal**

Federal Title IV regulations dictate the return of federal aid monies. If a recipient of Title IV funds (TEACH Grant, Direct Stafford Loan, Direct GradPLUS Loan) withdraws from school after beginning attendance, a portion of the Title IV funds may have to be returned to the U.S. Department of Education (USDE).

Title IV funds are awarded to a student under the assumption that the student will attend school for the entire period for which the assistance is awarded. When a student withdraws, the student may no longer be eligible for the full amount of the Title IV funds that the student was originally scheduled to receive.

Students, who are considering withdrawing after the semester begins or reducing their credit hour load, should contact the Student Financial Services Office first to determine the impact on their financial aid awards.

If a student withdraws before completing 60 percent of the semester, the percentage of Title IV funds earned is equal to the percentage of the semester completed. The university is required to return the unearned portion to the U.S. Department of Education. If a student earned less aid than was disbursed, the institution is required to return a portion of the funds and the student is then required to return a portion of the funds. When Title IV funds are returned, the student borrower may owe a balance to the institution. The institution must return the amount of the Title IV funds for which it is responsible no later than 30 days after the date of the determination of the date of the student's withdrawal.

The percentage of payment period or term completed up to the withdrawal date is determined by dividing the total number of days enrolled by the total days in the standard payment period or term. (Any break of five days or more is not counted as part of the days in the term.) This percentage is also the percentage of earned aid. Funds are returned to the appropriate federal program based on the percentage of unearned aid using the following formula: aid to be returned = (100 percent of the aid that could be disbursed minus the percentage of earned aid) multiplied by the total amount of aid that could have been disbursed during the payment period of the term.

Returns are allocated in the following order:

- Unsubsidized Direct Stafford Loans
- Federal Perkins Loans
- Direct GradPLUS Loans

If a student withdraws after completing more than 60 percent of the semester, the percentage of Title IV funds earned is 100, and neither the student nor the school return any funds to USDE.

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

**Medical Withdrawal:** Students who request a medical withdrawal are required to repay all refund amounts they received from excess financial aid during the term in question. In order to fully (100 percent) credit the tuition and fees, the university must return all aid. Any refunds of excess financial aid given to the student must be repaid to the university *before* the withdrawal request is finalized.

*Please note: The university refund policy for tuition and fees is very different from the Federal Title IV regulations for returning financial aid. For example: If a student withdraws after the end of the university refund period, the student will be charged for 100 percent of his/her tuition and fees. If the student withdraws before completing more than 60 percent of the semester, the university is required to return a portion of his/her Title IV funds. In most cases, the student will owe the university for the Title IV funds returned. If not repaid to the university, the student will not be able to return in future semesters or receive official transcripts.*

### **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 3.5 GPA 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 AND INFORMATION SCIENCES**

**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 GPA 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.

#### **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 nine graduate credit hours with a cumulative GPA 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 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..

## COLLEGE OF ARTS, EDUCATION AND SCIENCES

### SCHOOL OF EDUCATION

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

## VENANGO COLLEGE SCHOOL OF HEALTH SCIENCES

### 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.

### DEPARTMENT 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 814-393-1252.

## 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. 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 six graduate 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.

### University Libraries

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

125 Carlson Library Building  
Telephone: 814-393-2343  
E-mail address: tlatour@clarion.edu  
Website: www.clarion.edu/library

**Department Faculty:** M. Buchanan, S. Chen, L. Cheresnowski, N. Clemente, C. Glotfelty, S. Johnson, B. Martin

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

gateway to scholarly resources including services which provide full text access to thousands of academic journals and services for distance learners.

The mission of the Clarion University libraries is to:

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

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

Student Health Services, accredited by the Accreditation Association for Ambulatory Health Centers (AAHC), provides health services and wellness promotion to the students of Clarion University. Health Services is located at 256 Becht Hall. A highly credentialed staff, including contracted physicians, certified registered nurse practitioners and registered nurses certified in college health, provide specialized student health services. Operating hours are 8:30 a.m.-4:45 p.m., Monday through Friday. After-hours and emergency services are available from a variety of community providers.

Care provided by Health Services is similar to that provided in a physician's office. Specific services include: physical examinations, immunizations, allergy injections,

medications and prescriptions, pregnancy testing, treatment of acute and chronic illnesses and injuries and referral to appropriate community resources. Proper immunization is highly recommended prior to university entrance.

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

A small fee is assessed for each visit. In addition, there may be charges for medications or procedures associated with the visit. Students are strongly encouraged to contact their primary insurance carrier to determine the conditions and limitations, if any, on medical treatment away from home. Health Services does not bill insurances for visits, procedures, or medications. All expenses incurred at the health center are applied to the student's account. Charges for laboratory, X-ray, and inpatient or outpatient services at other facilities are the responsibility of the student.

### **Health Insurance**

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

In an attempt to offer students an affordable health insurance option, Clarion University has collaborated with 12 other universities in the Pennsylvania State System of Higher Education to offer an economical and comprehensive insurance policy to students not covered by their parents' policy. Students interested in obtaining this insurance from Consolidated Health Plans should go to [www.chpstudent.com](http://www.chpstudent.com).

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

### **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. Group insurance plan is approximately \$1,900 per year payable in full or on a semester basis at the beginning of each semester. 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 \$500,000
- \*minimum repatriation expense benefit of \$7,500
- \*minimum medical evacuation benefit of \$10,000
- \*Coverage of treatment for preexisting medical conditions

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 may be available in any of our University Housing, which includes two types of Residence Hall Suites or Reinhard Villages apartments. For information, interested students should contact the Office of Residence Life Services, 218 Becht Hall, by telephone 814-393-2352, or e-mail [reslife@clarion.edu](mailto: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/placestolive](http://www.clarion.edu/placestolive)

### **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 may be 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](http://www.clarion.edu/parking).

### **Center for Career and Professional Development**

Students are invited to visit the Center for Career and Professional Development in person or virtually to access resources for:

- Career exploration and planning
- Getting experience
- Job search preparation
- Live and virtual career fairs
- Campus, part-time, seasonal and full-time employment
- Transition from student to professional
- Graduate and pre-professional application information

We use an online career management system, to help you manage your career action plan and we offer assistance to Clarion alumni. Connect with us in person or through email, SKYPE, Twitter or Facebook, or another social media.

The center serves all Clarion University students and alumni. Our approach is to inform and empower; linking you with resources and opportunities, so you can develop and achieve your career goals. We collaborate with academic departments, student organizations, university offices, alumni and employers to provide an environment where you can acquire the knowledge, skills, and experiences required to successfully transition to employment or graduate education.

### **Judicial and Mediation Services**

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

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

Effective July 1, 2012, Clarion University applies a notification of student disciplinary expulsions and suspensions on Academic Transcripts. This notification will be viewed on official, unofficial, and electronic transcripts.





# MASTER OF BUSINESS ADMINISTRATION DEGREE

## COLLEGE OF BUSINESS ADMINISTRATION AND INFORMATION SCIENCES

**Graduate Faculty:** R. Balough, G. Barboza, J. Belloit, M. Brigida, J. Eicher, A. Greci, T. Johns, C. Nakhata, M. Olivas-Luján, W. Pratt, R. Raehsler, K. Roth, F. Shepard, S. Trejos, P. Woodburne

### **COBA Mission**

The College of Business Administration at Clarion University of Pennsylvania is committed to preparing its students for success as ethical business leaders and professionals in a dynamic, complex global environment through high quality, challenging academic and related programs, while serving the academic and business communities through effective teaching, scholarly contributions, and appropriate service to the university and the region. (Revised April 27, 2010)

### **Master of Business Administration**

302 Still Hall  
Telephone: 814-393-2605  
E-mail: [mba@clarion.edu](mailto:mba@clarion.edu)  
[www.clarion.edu/mba](http://www.clarion.edu/mba)

### **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. 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 a variety of formats including online, on campus, day and evenings. Our 100 percent online option is ideal for 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) or GRE or qualify for the waiver.
- 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. and a part-time online M.B.A. program option. Please visit [www.clarion.edu/mba](http://www.clarion.edu/mba) for more information regarding any of these program options, including admissions criteria and program features.

### Requirements for Graduates

Course requirements for the M.B.A. degree are composed of foundation courses, M.B.A. core courses, and an elective course. A total of 33 graduate credits is required for the completion of the degree:

- one 3-credit M.B.A. elective course and
- ten 3-credit M.B.A. core courses (excluding foundation courses).

A maximum of nine graduate credit hours toward the 33 credits required for the M.B.A. degree may be transferred from accredited graduate programs with the pre-approval of the M.B.A. program coordinator and the department chairperson of the course from which transfer credit is sought.

### 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 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 and is not subject to the nine-credit transfer limit for the core/elective courses but requires pre-approval. 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 (501 and 502) or 215 (ECON 500)
Financial Accounting	ACTG 251 (ACTG 500)
Economics Business Statistics I & II	ECON 221 & 222 (504 and 505) or 230
Management Theory	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 and Organization	MGMT 521	3.0
2. Quantitative Analysis for Business	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. Managerial Finance	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 <sup>1</sup>	BSAD 690	3.0

<sup>1</sup> 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 coordinator 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.

### ***Additional Requirements for the M.B.A. Degree***

#### **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 grade-point average (GPA) are automatically placed on probation. Students whose GPA 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 or foundation 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 Preparation***

Students who desire to become Certified Public Accountants (CPAs), may fulfill Pennsylvania’s 150-credit-hour requirement for CPA licensure through an undergraduate degree in accounting (120 credits), along with the Clarion M.B.A. degree (33 credits). An integrated BS-Accounting/MBA program of study can be completed in five years and provides a total of 153 semester hours of coursework. Along with 36 hours in accounting subjects (i.e., accounting, auditing, business law, finance, and tax), the student may fulfill the educational requirement for CPA licensure under the Pennsylvania CPA law.

### ***Bachelor’s to M.B.A. Option***

The College of Business Administration offers a Bachelor’s to M.B.A. Option. Undergraduate foundation course requirements in business administration may be taken concurrently with any 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 Bachelor’s to M.B.A. 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 online at [www.clarion.edu/academics/GA-Application-Form.pdf](http://www.clarion.edu/academics/GA-Application-Form.pdf).

### ***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.



## MASTER OF EDUCATION DEGREES

### COLLEGE OF ARTS, EDUCATION AND SCIENCES

#### School of Education

##### M.Ed. in Education

**Bruce Smith, Ph.D.**, Graduate Program Coordinator  
123 Stevens Hall  
Telephone: 814-393-2404  
E-mail: [bsmith@clarion.edu](mailto:bsmith@clarion.edu)  
[www.clarion.edu/education](http://www.clarion.edu/education)

**Graduate Faculty:** P. Apple, L. Bonnett, J. Brown, D. Ellermeier, J. Haight, M. Howe, J. McCullough, K. Murphy, A. Shannonhouse, B. Smith, J. Smrekar, K. Sprenger

##### **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 GPA is 3.0 or above (on a 4.0 scale).
- Three faculty/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 GPA is less than 3.0/4.0 scale. Regular status may be granted upon completion of six semester hours of graduate study with a minimum of 3.0/4.0 average.

**Early Childhood Education (M.Ed.),  
Education Technology (M.Ed.), Reading  
(M.Ed.) and Science Education (M.Ed.)  
outcomes**

1. Demonstrate discipline specific content, child development, and pedagogical content knowledge.
2. Demonstrate professional responsibility and ethical conduct while exhibiting respect for the cultural diversity of learners, families, colleagues, and communities.
3. Develop standards aligned goals, objectives, and learning experience plans.
4. Differentiate instruction by implementing instructional strategies informed by assessment data.
5. Design appropriate assessments to measure learner knowledge, skills and dispositions.
6. Communicate professionally and engage learners, families, and community members.
7. Analyze and reflect on instructional strategies, behavioral strategies, and learner progress.

**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 PEDAGOGY OR ECH 501 .....3 s.h.

Curriculum—ED 523: CURRICULUM DEVELOPMENT  
AND EVALUATION OR ECH 502 .....3 s.h.

Professional Seminar—ED 578: PROFESSIONAL  
SEMINAR .....3 s.h.

**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.

**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 EDUCATION .....3 s.h.

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

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

ED 506: GENDER ISSUES IN EDUCATION .....3 s.h.

ED 509: OBSERVATIONS AND ANALYSIS OF THE  
URBAN CLASSROOM .....3 s.h.

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

ED 521: INSTRUCTIONAL LEADERSHIP SKILLS .....3 s.h.

ED 526: SOCIOLOGY OF EDUCATION .....3 s.h.

ED 533: RECENT DEVELOPMENTS IN ELEMENTARY  
SOCIAL STUDIES .....3 s.h.

ED 534: WORKSHOP IN EDUCATION— WITH  
PERMISSION OF ACADEMIC ADVISOR .....3 s.h.

ED 537: STRATEGIES AND PROBLEMS OF TEACHING  
ELEMENTARY SCHOOL MATHEMATICS .....3 s.h.

ED 544: CLASSROOM ASSESSMENT FOR LEARNING ...3 s.h.

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

ED 599: SPECIAL TOPICS IN EDUCATION— WITH  
PERMISSION OF ACADEMIC ADVISOR

ECH 501: EARLY CHILDHOOD CURRICULUM  
AND INSTRUCTION.....3 s.h.

ECH 502: EARLY CHILDHOOD CURRICULUM  
AND ASSESSMENT .....3 s.h.

ECH 510: LEADERSHIP IN EARLY CHILDHOOD  
EDUCATION AND CARE .....3 s.h.

SCED 502: INVESTIGATIVE TECHNIQUES AND  
PROCESS APPROACH TO MODERN  
SCIENCE CURRICULA .....3 s.h.

SPED 500: CONTEMPORARY ISSUES IN  
SPECIAL EDUCATION .....3 s.h.

SPED 536: ADVANCED METHODS FOR INDIVIDUALS  
WITH MILD/MODERATE HANDICAPS .....3 s.h.

SPED 596: CONTEMPORARY EDUCATION PRACTICES  
AND DIRECTIONS .....3 s.h.

SPED 597: COLLABORATION AND COOPERATION:  
IMPROVED TEACHING AND LEARNING  
OUTCOMES .....3 s.h.

Additional courses as approved by advisor

**EARLY CHILDHOOD CONCENTRATION ..... 12 s.h.**

ECH 501: EARLY CHILDHOOD CURRICULUM  
AND INSTRUCTION..... 3 s.h.

ECH 502: EARLY CHILDHOOD CURRICULUM  
AND ASSESSMENT ..... 3 s.h.

ECH 505: THE HEALTHY INFANT, TODDLER,  
AND YOUNG CHILD..... 3 s.h.

ECH 510: LEADERSHIP IN EARLY CHILDHOOD  
EDUCATION AND CARE ..... 3 s.h.

ECH 512: LEADERSHIP IN EARLY CHILDHOOD  
EDUCATION AND CARE .....3 s.h.

ED 534: WORKSHOP IN EDUCATION— WITH  
PERMISSION OF ACADEMIC ADVISOR .....3 s.h.

ED 565: READING AND LANGUAGE ARTS IN EARLY  
CHILDHOOD .....3 s.h.

ED 599: SPECIAL TOPICS IN EDUCATION— WITH  
PERMISSION OF ACADEMIC ADVISOR

Additional courses as approved by advisor

**MATHEMATICS EDUCATION CONCENTRATION ..... 18 s.h.**

Choose six of these.

MAED 501: TEACHING SECONDARY MATHEMATICS .....3 s.h.

MAED 511: TECHNOLOGY FOR TEACHING  
SECONDARY MATHEMATICS .....3 s.h.

MAED 532: TEACHING STATISTICAL REASONING .....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 551: ALGEBRA/NUMBER THEORY FOR  
TEACHERS .....3 s.h.

MAED 556: RESEARCH IN MATHEMATICS  
TEACHING & LEARNING .....3 s.h.



- MAED 571: ANALYSIS FOR TEACHERS .....3 s.h.
- \*REQUIRED MATH CORE
- 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.

**READING CONCENTRATION ..... 18 s.h.**

*With or without Reading Specialist Certification. See CLPS doc for description and list of courses.*

- 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.

**READING SPECIALIST CERTIFICATION ..... 27 s.h.**

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:

- ED 520: INTRODUCTION TO RESEARCH.....3 s.h.
- ED 563: READING PEDAGOGY .....3 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.
  - ED 578: PROFESSIONAL SEMINAR .....3 s.h.
- Successful completion of Reading Specialist 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.



<b>TECHNOLOGY CONCENTRATION.....</b>	<b>12 s.h.</b>
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.
COM 558: SOCIETY, LAW, AND MEDIA TECHNOLOGY .....	3 s.h.
ED/CIS 649: EDUCATIONAL TECHNOLOGY LEADERSHIP .....	3 s.h.
COM 650: ADVANCED TECHNOLOGY APPLICATIONS .....	3 s.h.
COM 651: DEVELOPING IT INFRASTRUCTURE.....	3 s.h.
LS 540: MULTICULTURAL SOURCES AND SERVICES FOR EDUCATORS AND LIBRARIANS .....	3 s.h.
Additional courses as approved by advisor	

### **Graduation Requirements**

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

### **Job Search Assistance**

Typically, graduate program candidates are already involved in professional careers that are being enhanced by the graduate studies. For students who are seeking employment, the faculty and the university Career Services Center provides job search assistance.

### **Graduate Assistantships**

A limited number of graduate assistantships may be granted for 10 and/or 20 hours of departmental service per week in exchange for 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.

### **Graduate Early Childhood Certification Program**

Clarion University's Graduate Childhood Certification Program offers web-based graduate courses to those who currently hold Pennsylvania Elementary certification that will allow them to earn Pennsylvania Early Childhood

Certification. The courses are designed to facilitate participants' knowledge, skills and dispositions that will enable them to effectively interact with and guide the learning of young children and their families and has been approved by the Pennsylvania Department of Education.

The program currently consists of five online graduate courses and the Praxis II exam in Early Childhood.

The graduate courses that will make up the Graduate Early Childhood Certification program are part of the Master of Education with a concentration in Early Childhood Education program. The courses are designed to address the five standards of the National Association for the Education of Young Children and the Pennsylvania Early Learning Standards. Those who complete this program may choose to continue on for the Master of Education degree.

### **Program Requirements**

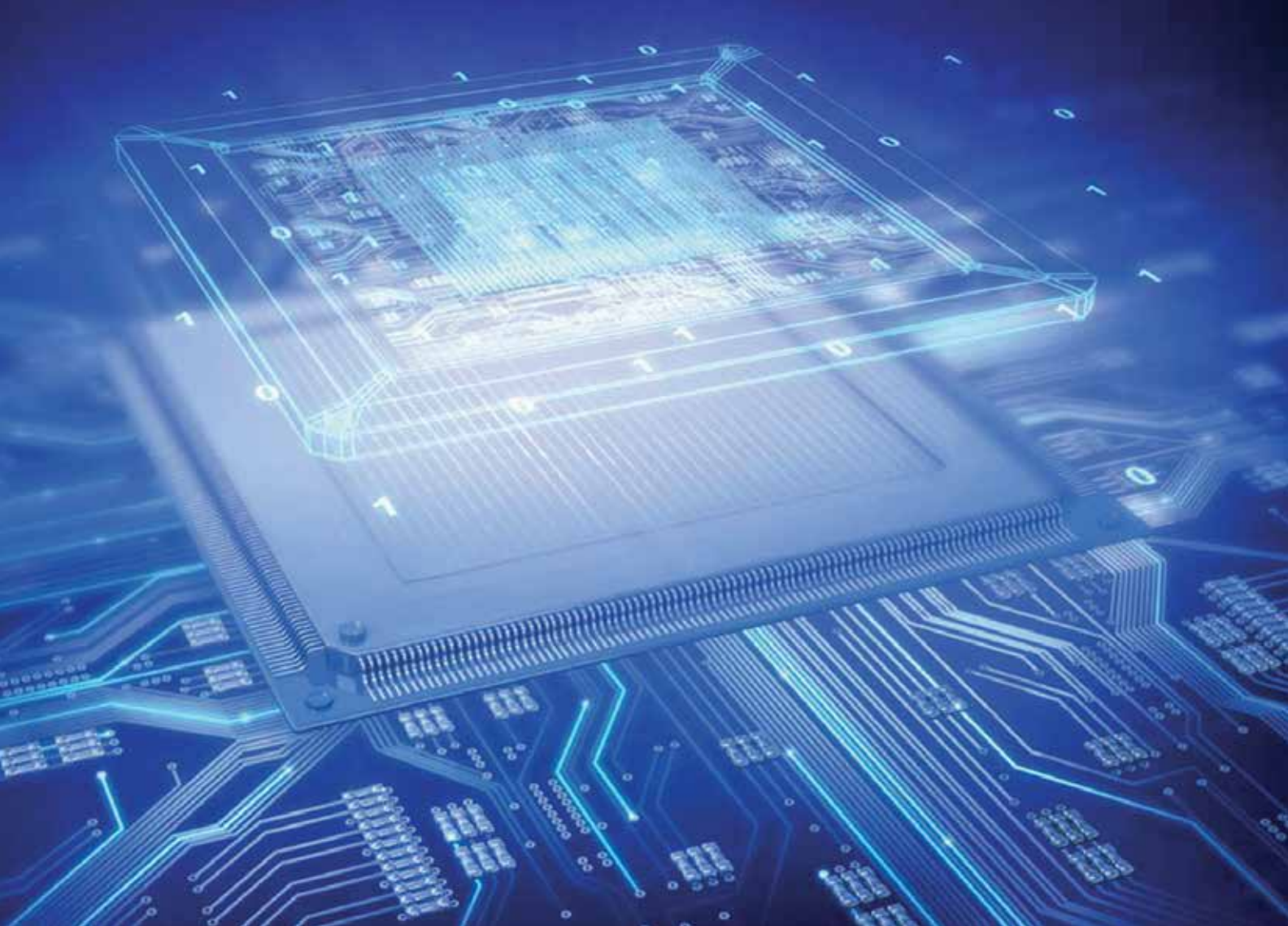
- ECH 501: Early Childhood Curriculum and Instruction
- ECH 502: Early Childhood Curriculum and Assessment
- ECH 505: The Healthy Infant, Toddler, and Young Child
- ED 565: Reading and Language Arts in Early Childhood
- ECH 510: Leadership in Early Childhood Education

### **Admission Requirements and Application**

The program will enroll only those who currently possess Pennsylvania Elementary Certification. These teachers will have met the Pennsylvania teaching competencies and will have completed student teaching. They are not required to student teach again to earn teaching certification in Early Childhood through this program. They will be required to pass the Praxis II exam in Early Childhood before Clarion University will recommend them to PDE for certification.

To apply, the candidate must apply for admission to the online at the Clarion University Graduate School, and provide a copy of their Pennsylvania Elementary Certificate and bachelor's degree transcript with their graduate admission package. Also required is documentation of current (within one year) Pennsylvania Act 33 and Act 34 clearances and FBI clearance along with verification of a valid health examination and negative Tuberculin test and proof of \$1,000,000 liability insurance.

*NOTE: Candidates may be subject to program adjustments to meet any new PDE regulations.*



## **ONLINE MASTER OF SCIENCE DEGREE APPLIED DATA ANALYTICS**

### **COLLEGE OF BUSINESS AND INFORMATION SCIENCES**

#### **Department of Computer Information Science**

**Dr. Jon O'Donnell, Chair**  
130 Becker Hall  
Telephone: 814-393-2442  
E-mail: [jodonnell@clarion.edu](mailto:jodonnell@clarion.edu)  
[www.clarion.edu/cis](http://www.clarion.edu/cis)

**Graduate Faculty:** S. Agyei-Mensah, J. Childs, S. Kim, J. O'Donnell, J. Strausser, J. Wyatt

#### ***Program Objectives***

It is no secret that the amount of data in our world has been exploding. Companies are producing transactional data; consumers are generating shopping data; social media sites are generating sentiment data; cell phones are generating location data; and devices such as automobiles are generating sensory and operating data. Big data is expected to rapidly become a key determinant of competition across all sectors of the economy and there will be a continuing severe shortage of analytics talent.

This program is geared towards working professionals or busy adults with domain knowledge in any undergraduate field. Students will take one on-line course at a time in a fairly rigid prerequisite structure to accumulate and apply

the necessary skills. Course lengths will vary from three to fifteen weeks and will be sequenced to allow the program to be completed in less than two years.

The program integrates computer and information science, statistics, and data-based business management principles to inform data driven decision making. It is an applied, technology intensive program focused on hands-on learning of the tools and techniques of data analytics. The curriculum emphasizes technical proficiency and applied practical experience and provides students with skills in database processing, data warehousing, data mining, and data visualization to solve Big Data problems.

### **Admission Requirements**

Graduate Studies admission requirements apply with the following additions:

- Applicants for full admission must have earned an overall GPA for the baccalaureate degree of at least 3.0 on a 4.0 scale.
- All applicants must have full administrator access to a computer with reliable Internet capability.
- All applicants should have sufficient end-user computer skills for installing software, finding files, and using office productivity software including word processing and spreadsheet software. If not, a course such as CIS 217 should be completed before taking the core courses in the program.
- All applicants should have completed an undergraduate statistics course. If not, a course such as ECON 221 should be completed before taking any of the Data Analytics (DA) courses in the program.
- All applicants should have completed an undergraduate computer programming course. If not, a course such as CIS 202 should be completed before taking any of the core courses in the program.

### **Degree Requirements**

To fulfill the degree requirements for graduation, students must complete 30 semester hours, including required courses, with a GPA of 3.0 or better on a 4.0 scale. Passing grade is “C” or above.

### **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 be at the graduate level and must have a grade of “B” or better. All transfer courses must be preapproved by the program coordinator and the CIS Department chair. With only three elective credits in this program, it is unusual to transfer in more than three credits.

### **Requirements for Graduation**

Course requirements for the MS in Applied Data Analytics degree are composed of foundation courses, core courses, and an elective course. A total of 30 graduate credits are required for the completion of the degree:

- nine 3-credit core courses (excluding foundation courses) and
- one 3-credit elective course.

The following courses are required of all students graduating with a Master of Science in Applied Data Analytics degree.

CIS 402G: DATABASE MANAGEMENT SYSTEMS.....	3 s.h.
CIS 520: INTRODUCTION TO DATA WAREHOUSING.....	3 s.h.
CIS 570: PROJECT MANAGEMENT .....	3 s.h.
DA 530: ANALYTICAL METHODS AND OPTIMIZATION.....	3 s.h.
DA 540: APPLIED DATA MINING.....	3 s.h.
DA 550: PREDICTIVE ANALYTICS.....	3 s.h.
DA 560: DATA VISUALIZATION .....	3 s.h.
DA 570: BIG DATA ANALYTICS .....	3 s.h.
DA 580: ANALYTICS CAPSTONE.....	3 s.h.
ELECTIVES .....	3 s.h.
TOTAL .....	30 s.h.

In addition to the core courses, all students will complete the balance of 30 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 degree only with prior approval of the data analytics program coordinator, the CIS Department chair, and the dean of the college.

- ACTG 451, 452, 453, 454, 455, 461, 463, 490, 499, 554, 650, 652, 653
- CIS 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 coursework, 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. Additional elective courses will be substituted in the case when a core course, such as CIS 402, has been previously taken for undergraduate credit.

### **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.





## **MASTER OF SCIENCE DEGREE LIBRARY SCIENCE**

### **SCHOOL OF INFORMATION SCIENCES**

#### **Department of Library Science**

**Linda L. Lillard, Ph.D., Chair**

209 Carlson Library

Telephone: 866-272-5612

E-mail: [llillard@clarion.edu](mailto:llillard@clarion.edu)

[www.clarion.edu/libsci](http://www.clarion.edu/libsci)

**Graduate Faculty:** S. Aristeguieta-Trillos, W. Buchanan,  
R. Clark, Y. Ha, M. Harhai, J. Krueger, L. Lillard,  
J. Maccaferri

#### ***Mission***

The department's mission is to prepare each student to enter, grow within, and contribute to librarianship or a related field within a global and digital information environment.

#### ***Vision***

Information for life.

#### ***Goals***

To educate students in accessing, evaluating, managing, communicating, creating and adapting the information environment for changing user groups.



**Information and Library Science (MSLS)****Outcomes**

1. Demonstrate knowledge of the information profession by relating foundational principles, philosophy, and ethics to contemporary issues, by identifying key, on-going interdisciplinary developments in the field, and by analyzing current practices for future implications of the profession.
2. Create, select, acquire, manage, and maintain the information environment by analyzing how users seek out information.
3. Demonstrate and be able to explain the principles of organizing recorded information by exploring both past and present theories of organizing and representing recorded information and by understanding and applying the standards of organizing recorded information in libraries and information centers.
4. Identify, explain, use and critically evaluate both current and emerging information technologies in libraries and information centers
5. Provide information services to a diverse community by analyzing, synthesizing, and disseminating traditional and emerging information resources, by developing communication and interpersonal skills for determining the information needs of all users, by creatively utilizing techniques and tools to address information needs, and by advocating for underserved audiences.
6. Demonstrate an understanding of research by identifying the fundamental characteristics of quantitative and qualitative research and by analyzing the value of research literature in the library and information field.
7. Develop a commitment to continuing education by participating in local, regional, and national professional development opportunities.
8. Demonstrate the principles and practices of administration and management by recognizing the appropriate methods to continually measure and ensure the quality and value of personnel, services, the information environment, and physical spaces, by developing and evaluating the budget and additional sources of funding (i.e. grants) in alignment with short and long range goals and objectives, and by evaluating the advantages and disadvantages of establishing networks with libraries, consortia, community organizations, government officials, and other professional bodies, i.e., schools.

**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 GPA for the baccalaureate degree of at least 3.00 on a 4.00 scale; or
2. a 3.00 GPA 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 GPA for the baccalaureate degree with a score of at least 412 on the Miller Analogies Test or a combined score of at least 300 on the quantitative and verbal sections of the Graduate Record Examination or new test equivalent; or
4. a graduate degree in another discipline with an overall GPA of at least 3.00.

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

**PROCEDURE**

Students may begin their studies any semester or term. 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.

**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, 504, 505, and 573), one management course (LS 532 or 534), the capstone course (LS570 or LS600) and six elective courses or concentration 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/ School Library Media**

Clarion University's MSLS in School Library Media concentration consists of courses that prepare students to be school librarians but Clarion University does not grant actual school library media certification. A student wishing to obtain Pennsylvania Library Science Certification for K-12 who holds a valid Pennsylvania teaching certificate can complete the MSLS School Library Media and then check with the Pennsylvania Department of Education for additional certification requirements. Students from other states should check with their state department of education to determine certification requirements.

### **Master of Science in Library Science/ Management of Information Agencies**

Clarion University's MSLS in Management of Information Agencies concentration will allow MSLS students to remain competitive regarding employment prospects. Many students, though not planning to do so initially, end up as library directors of small and medium sized libraries and/or information agencies immediately after completing the MSLS degree. This concentration prepares them for the additional duties an administrator must be able to handle. The overall objective of the concentration is to provide students with a coherent program of study in which they can acquire the necessary skills to be successful as a library or information agency administrator.

### **Master of Science in Library Science/ Information Access**

Clarion University's MSLS in Information Access concentration will allow MSLS students to remain competitive regarding employment prospects. Since the library and related professions often move in the direction of the emerging technology, the concentration will allow students to develop marketable skills not only for libraries, but in the overall information market. With the unfolding of Web 3.0 technologies applicable to libraries and beyond, the potential for future student growth and future employment opportunities for Clarion graduates should exist. The advanced coursework is such that it will allow students to enhance and build upon these competencies in a designed direction in order for the students to acquire skills needed to understand how existing structures, schemas, and systems can be adapted to emerging technologies for linked data.

### **Master of Science in Library Science/ Reference and User Services**

Clarion University's MSLS in Reference and User Services concentration will allow students to construct a

coherent program of study in the area of reference and user services. This group of courses will provide students with a skill set necessary to provide instruction and information services for patrons in all types of libraries. Students will master skills in the areas of general reference sources and services, instructional design and delivery, specialized sources and services such as business sources, government information, resources in the humanities, and resources in the social sciences

### **Master of Science in Library Science/ Local and Archival Studies**

Clarion University's MSLS in Local and Archival Studies concentration will allow students to construct a coherent program of study in the area of local and archival studies. This group of courses will provide students with a skill set necessary for work in information environments dealing with local and archival documents such as libraries, archives, historical societies, etc. Students will master skills in the areas of: management of collections, information technology and digital resources. Students will be qualified for public library local history/genealogy positions, academic library reference and archives positions, and local special collection management positions in settings outside of libraries.

### **Master of Science in Library Science/ Juris Doctor Program**

The department offers a cooperative 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.

### **Master of Science in Library Science/ Master of Arts in Applied History**

The department also offers a cooperative MSLS/MA in Applied History program in cooperation with Shippensburg University. Students must be accepted by each instruction through a separate applications process at each university. Students enrolled in the joint program will receive a six-hour (two-course) reduction in total hours required for the two degrees.

### **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 24 graduate credits within a four-year period, and maintenance of a 3.00 GPA.

Documentation required for admission includes a goals statement, an official transcript from the school that granted the ALA-accredited 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 its M.S.L.S. program fully online utilizing various Web-based delivery techniques. Students plan a cohesive course of study with their faculty advisor. See [www.clarion.edu/libsci](http://www.clarion.edu/libsci) for current program offerings. These courses may be taken part of the M.S.L.S., the Certificate of Advanced Studies program, or individually for continuing education progress.

### **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
- The Helen Ferry Shields Scholarship

Scholarship application deadlines are announced through the department's list serv. 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 ask for 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.

### **Capstone**

Each student selects one of two options as a capstone course which is taken in the last semester or term of the M.S.L.S. program:

LS570: INTERNSHIP IN LIBRARIANSHIP: Provides an advanced preprofessional experience through work in a cooperating library or information center. Students are expected to apply and evaluate the theory and practice learned in the classroom; prepare an evaluative paper, and be observed and evaluated by the site supervisor. Accreditation assessments administered. Prerequisites: successful completion of at least 30 credit hours, including all other required courses; permission of advisor, internship coordinator, and the department chair. For students not seeking initial teacher certification.

LS600: RESEARCH IN LIBRARIANSHIP: Intended as capstone experience for students in the Master of Science in Library Science program. Provides the opportunity to pursue a research project related to the student's area of specialization or interest and which is based on a research strategies developed in LS 550. Accreditation assessments administered. Prerequisites: LS 550 and successful completion of at least 30 credit hours, including all other required courses; project approval by advisor, instructor, and the department chair. For students not seeking initial teacher certification.

### **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 is a smart classroom with additional ITV equipment. Students have ready access to a variety of Web-based resources through the department's computer laboratory.

### **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 Office of Graduate Programs under the co-editorship of departmental faculty. *Current Studies in Librarianship* is indexed by *Library and Information Science Abstracts (LISA)* and *Library Literature and 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.





## **ONLINE MASTER OF SCIENCE DEGREE MASS MEDIA ARTS AND JOURNALISM**

### **COLLEGE OF ARTS, EDUCATION AND SCIENCES**

#### **Department of Communication**

**Myrna Kuehn, Ph.D., Chair**  
130 Becker Hall  
Telephone: 814-393-2286  
E-mail: [kuehn@clarion.edu](mailto:kuehn@clarion.edu)  
[www.clarion.edu](http://www.clarion.edu)

**Graduate Faculty:** M. Crespo, M. Kuehn, S. Kuehn,  
A. Lingwall, L. Miller, N. O'Neil, H.J. Yang

#### ***Program Objectives***

In the 21<sup>st</sup> 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 Online Programs, 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 two years or less. The program is intended for busy adults who cannot travel to campus due to distance, job commitments, or family responsibilities. Classes are offered in both the traditional 16-week semester schedule as well as in two 7-week sessions fall and spring.

#### ***Admission Requirements***

Graduate Studies admission requirements apply with the following additions:

- Applicants for full admission must have earned an overall GPA 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 GPA is at least 2.75 on a 4.0 scale and a scaled score of 400 or above is achieved on the Miller Analogies Test or a GRE (Graduate Record Examination) score of 300 on the quantitative and verbal sections. 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 GPA 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 COM 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.

COM 525:	MASS COMMUNICATION THEORY .....	3 s.h.
COM 551:	PUBLIC RELATIONS FOUNDATIONS .....	3 s.h.
COM 552:	JOURNALISM FOUNDATION .....	2 s.h.
COM 558:	SOCIETY, LAW, AND MEDIA TECHNOLOGY ...	3 s.h.
COM 559:	MANAGEMENT OF THE COMMUNICATION PROCESS .....	3 s.h.
COM 621:	MASS COMMUNICATION RESEARCH .....	3 s.h.
COM 642:	ADVANCED PUBLIC RELATIONS WRITING.....	3 s.h.

#### Choose one:

COM 500/600 LEVEL COURSE IN FOCUSED AREA OF INTEREST .....	3 s.h.
COM 700: GRADUATE CAPSTONE PROJECT (by permission of graduate faculty) .....	6 s.h.
No comprehensive examination 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 COM 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 and digital audio production suite.

### **The Online Graduate 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 GPA of 3.0 on a 4.0 scale.
- Admission on a provisional basis may be granted if the applicant's GPA is at least 2.75 on a 4.0 scale and a scaled score of 400 or above is achieved on the Miller Analogies Test or a combined GRE (Graduate Record Examination) score of 300 on the quantitative and verbal sections. 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 GPA of 3.0 or better on a 4.0 scale. Passing grade is "C" or above.

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

### **MMAJ (MS) Outcomes**

1. Students will demonstrate oral and nonverbal communication skills in forms and styles that are clear, accurate, thorough, cogent, fair and appropriate for communication professions, audiences and purposes they serve.
2. Students will demonstrate the ability to write in forms and styles that are clear, accurate, thorough, cogent and fair, and appropriate for scholarly research as well as for communication professions, audiences and purposes they serve.
3. Students will demonstrate the ability to think critically, creatively, and independently as they consider the persuasive nature of communication and the role of strategic planning for communication events.
4. Students will demonstrate an awareness and appreciation of the diversity of groups in a global society in relationship to communication.
5. Students will demonstrate the ability to gather and critically evaluate information from diverse and varied sources.
6. Students will demonstrate an understanding of the history and development of communication and the ways in which this history has affected individuals and society.
7. Students will demonstrate the ability to edit or produce communication material that is clear, accurate, thorough, cogent and fair.
8. Students will demonstrate an understanding of current media technologies and their capabilities, limitations and implications from multiple perspectives, including that of producer, artist and audience.
9. Students will demonstrate appreciation for the pervasive nature of communication by acknowledging the interdependence and intertwining of all disciplines with communication.
10. Students will demonstrate an awareness and appreciation of the foundations of the First Amendment and ethical issues in the media in order to realize their democratic potential, exhibit robust citizenship, and conduct their endeavors with civility and integrity.





## **CLARION AND EDINBORO UNIVERSITIES MASTER OF SCIENCE IN NURSING**

### **VENANGO COLLEGE SCHOOL OF NURSING**

#### **Department of Nursing**

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

Clarion University–Pittsburgh Site  
4900 Friendship Ave.  
Pittsburgh, PA 15224  
Telephone: 412-578-7277  
E-mail: [dciesielka@clarion.edu](mailto:dciesielka@clarion.edu)  
[www.clarion.edu/dnp](http://www.clarion.edu/dnp)

**Graduate Faculty:** C. Barrett, D. Carlson, D. Ciesielka,  
D. Falsetti, N. Falvo, D. Kelly, A. McClune, K. Morahan, L.  
Morrison, L. Smith, K. Streiff, M. Terwilliger, T. White

#### ***Program Description***

The jointly-sponsored Clarion and Edinboro Universities Master of Science in Nursing (MSN) program prepares graduates for entry into practice as family nurse practitioners. Options include the MSN degree, Post-Master's Certificate, and Second Master's degree. The FNP-MSN degree is 45 semester hours in length and includes 600 hours of clinical practice. FNP graduates are prepared to provide primary care in medically underserved areas and are eligible to apply for legal certification as family nurse practitioners after passing professional certification exams through either the American Nurses Credentialing Center (ANCC) or the American Academy of Nurse Practitioners Certification Program (AANPCP).

Courses are delivered online with the exception of a limited number of on campus skill labs and workshops. To facilitate site visits, clinical practica also must be



completed within a 2 hours' drive of faculty located in Pittsburgh, Clarion, Oil City, or the Edinboro/Erie area. Graduates of the program receive a joint degree granted by both universities. Students are assigned one university site for advisement and may utilize facilities and services of both universities.

The MSN program is accredited by the Accreditation Commission for Education in Nursing, Inc. (ACEN). Students should check the program Website for the most up-to-date program information: [www.clarion.edu/dnp](http://www.clarion.edu/dnp). 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, participate in shaping health policy, and contribute to research that improves patient care. 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 are prepared to:

- Synthesize established and evolving knowledge from nursing, the sciences and humanities into advanced practice nursing.
- Incorporate professional/legal standards and moral/ethical values into a culturally sensitive practice.
- Provide advanced nursing practice that reflects critical thinking and effective interpersonal and communication skills.
- Appraise and assimilate theory and scientific evidence to investigate and evaluate practice based issues.
- Demonstrate awareness and responsiveness to systems-based practice through advocacy, collaboration and effective use of resources.

### **Admission Requirements**

The admission requirements are as follows:

- Payment of the application fee.
- Evidence of an earned baccalaureate degree in nursing from an accredited program.
- Licensure as a registered nurse in the Commonwealth of Pennsylvania.
- An undergraduate GPA of 2.75 on a 4.0 scale or a graduate GPA 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 in the past 10 years of a college-level statistics course with a grade of "C" or better.

### **Application Deadlines**

To be fully considered for the limited number of seats in our competitive Nursing program, all materials must be in our Graduate Office by October 1 prior to the fall start date for any given year. Clarion University operates on a rolling admissions basis which means that applications may be submitted and reviewed any time prior to the deadline. It is recommended that applications be submitted far enough in advance of the deadline to insure 'complete' status. Applications received after the October 1 deadline may be considered for an interview for our wait list, or for acceptance to the following year's class if qualified. All students will be notified of their status by March 1.

### **Applicants are strongly advised to apply early.**

For an application and detailed instructions visit: [www.clarion.edu/dnp](http://www.clarion.edu/dnp)

### **Curriculum**

Core courses:

- \* 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 645: Nursing and Public Policy ..... 3 s.h.
- NURS 800: Scholarly Project/Thesis ..... 3 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.

Courses with a clinical component:

- NURS 615: Advanced Health Assessment ..... 2 s.h.
- NURS 616: Advanced Health Assessment Practicum 2 s.h.
- NURS 620: Clinical Decision Making I ..... 1 s.h.
- NURS 621: Clinical Decision Making I Practicum.... 2 s.h.
- NURS 622: Family Nurse Practitioner Role Development ..... 1 s.h.
- NURS 630: Clinical Decision Making II ..... 3 s.h.
- NURS 632: Clinical Decision Making II Practicum .. 2 s.h.
- NURS 640: Clinical Decision Making III ..... 3 s.h.
- NURS 642: Clinical Decision Making III Practicum. 2 s.h.
- NURS 750: Family Nurse Practitioner Internship ..... 6 s.h.

### **Degree Requirements**

To fulfill degree requirements for graduation, the student must complete 45 semester hours of required course work. The student must maintain a GPA of 3.0 or better on a 4.0 scale. Completion of a scholarly project/thesis is required before registering for the final internship. Successful completion of a comprehensive assessment in the form of a professional portfolio is required for graduation. All degree requirements must be completed within six years of the first date of enrollment.

**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's 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 with a concentration as a Family Nurse Practitioner. 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 Family Nurse Practitioner Certificate is available to individuals who hold a master's degree in nursing from an accredited program. A program of study that meets all requirements for the graduate to sit for national certifying exams will be tailored to the needs of the individual. A minimum of 24 credits is required to earn a certificate.



## DOCTOR OF NURSING PRACTICE

### VENANGO COLLEGE SCHOOL OF HEALTH SCIENCES

#### Department of Nursing

**Dr. Colleen Bessetti-Barrett, DNP, CRNP, FNP-BC**  
**Program Coordinator**

Edinboro University of Pennsylvania  
122 Jeremy Brown Human Services Building  
814-732-1643  
cbarrett@edinboro.edu  
www.edinboro.edu/dnp  
www.clarion.edu/dnp

**Graduate Faculty:** C. Bessetti-Barrett, D. Ciesielka, D. Kelly, M. Larson, A. McClune, J. Rodgers, T. White

#### *Program Description*

The DNP is designed to build on the MSN-FNP degree. Applications will be open to any MSN-prepared advanced practice nurse (NP, CNS, CRNA, or CNM) who meets admission requirements:

1. Master of Science in Nursing degree;
2. National certification as an advanced practice nurse;
3. Unencumbered, current license to practice as an advanced practice nurse in the state where internship hours will take place;
4. Verification of a minimum of 500 supervised clinical hours from the applicant's graduate program; and
5. Graduate GPA > 3.25.

The Clarion and Edinboro Universities' DNP Program is a 34-credit program that offers specialty electives in advanced clinical practice and clinical nursing education. Courses can be taken part-time over six semesters in an online format. Students will be admitted in cohorts of 27 and begin courses in the summer. The program is designed to be flexible, affordable, and professionally



rewarding. The online, part-time structure accommodates employment as an advanced practice nurse while pursuing the DNP, thus easing the financial burden. Tuition and fee information can be found at [www.clarion.edu/tuition](http://www.clarion.edu/tuition) and click on graduate tuition and fees.

### **Program Objectives**

The overall purpose of the DNP program is two-fold: a) to prepare advanced practice nurses to critically evaluate, integrate, and disseminate the highest level of professional nursing practice possible, and b) to respond to regional and national shortages of primary care providers and clinical nursing faculty.

### **Program Outcomes**

The terminal learning outcomes for the Clarion and Edinboro Universities' DNP program are to prepare advanced practice nurses to be able to:

1. Apply clinical scholarship through advanced nursing practice within complex health systems.
2. Design, implement, analyze, and disseminate research that translates evidence to practice.
3. Demonstrate advanced leadership skills for empowering and influencing others to bring about change.
4. Utilize information and management systems to support evidence-based practice.
5. Establish inter-professional relationships to provide comprehensive delivery of advanced practice nursing.

### **Admission Requirements**

Master's prepared advanced practice registered nurses (APRN) as defined by the APRN consensus model, that is Certified Nurse Practitioners, Clinical Nurse Specialists, Certified Nurse Midwives, and Certified Nurse Anesthetists, are eligible for this program, provided they meet the following admissions requirements:

1. Current unencumbered licenses as a Registered Nurse and Advanced Practice Nurse in the state of PA.
2. Bachelor of Science in Nursing
3. Master of Science in Nursing (MSN) or other master's degree from an accredited program with a GPA of 3.25 or higher. Note: Applicants with a master's degree other than nursing may require additional coursework prior to enrollment, as determined by a review of official transcripts.
4. National certification as an Advanced Practice Nurse is preferred.
5. Verification of a minimum of 500 supervised clinical hours from the applicant's graduate program.
6. A graduate course in research with a grade of "B" or higher or successful completion of graduate thesis. Note: Completion of a graduate level capstone project will be considered upon review of the project.



### **Application Deadlines**

To be fully considered for the limited number of seats in our competitive Nursing program, all materials must be in our Graduate Office by October 1 prior to the fall start date for any given year. Clarion University operates on a rolling admissions basis which means that applications may be submitted and reviewed any time prior to the deadline. It is recommended that applications be submitted far enough in advance of the deadline to insure 'complete' status. Applications received after the October 1 deadline may be considered for an interview for our wait list, or for acceptance to the following year's class if qualified. All students will be notified of their status by March 1.

**Applicants are strongly advised to apply early.** For an application and detailed instructions visit: [www.clarion.edu/dnp](http://www.clarion.edu/dnp)

### **Curriculum**

Content is organized around three focus areas: a leadership core, specialty electives, and advanced clinical practice.

### **Leadership Core**

Core courses with a leadership focus prepare graduates to utilize information and management systems within complex health care systems. The five courses that make up the leadership core are also part of the core courses for the program.

- NURS 805: DNP Role Seminar
- NURS 806: Leading Nursing in Health Care Systems
- NURS 807: Information Management in Health Care
- NURS 808: Analytical Methods of Evidence-Based Practice
- NURS 809: Advanced Topics in Nursing Practice

### **Specialty Electives**

Specialty electives are available in advanced clinical practice and clinical nursing education. Students can mix and match electives to meet their individual learning needs by selecting at least one course from each of the following groups. The first course listed in each group is in advanced clinical practice; the second course listed is in clinical nursing education.

#### **Group 1**

- NURS 810 Advanced Topics in Clinical Management
- NURS 820 Principles of Adult Learning in Nursing Education

#### **Group 2**

- NURS 811 Practice Strategies for APNs
- NURS 830 Clinical Teaching Strategies in Nursing

#### **Group 3**

- NURS 812 Systematic Evaluation in Health Care
- NURS 840 Advanced Evaluation Strategies in Nursing Education

### **Advanced Clinical Practice**

Culminating practice-based experiences build on the foundation of previous coursework in the program. Note that the internships and capstone project are also considered part of the core curriculum.

- NURS 850: Doctor of Nursing Practice Internship I and NURS 851: Doctor of Nursing Practice Internship II
- NURS 900: Doctor of Nursing Practice Capstone

Internship experiences account for 405 hours of direct clinical practice in the community and can be completed at students' home locations, or, in many cases, in their work settings.

The capstone project accounts for an additional 135 practice hours. The DNP capstone gives students the opportunity to demonstrate acquisition of increasingly complex skill sets in data acquisition, analysis, and practice application in a clinical setting.

### **Advisement**

Upon admission to the DNP Program the student will be assigned a faculty advisor. Before beginning the first course, the successful applicant 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, email, or desktop conferencing.



## **GRADUATE STUDIES IN SPECIAL EDUCATION**

### **SCHOOL OF EDUCATION**

#### **Department of Special Education**

##### **Graduate Studies in Special Education**

**Amy Conner-Love, Coordinator**

107 Special Education Center

Telephone: 814-393-2536

E-mail: [alove@clarion.edu](mailto:alove@clarion.edu)

[www.clarion.edu/departments/sped](http://www.clarion.edu/departments/sped)

**Graduate Faculty:** Y. Kim, R. Sabousky, L. Taylor, L. Turner

Graduate studies in the Department of Special Education are designed for those individuals pursuing special education certification as well as those individuals who want to expand their current knowledge base.

##### ***Program Objectives***

The mission of the Master of Science programs within the Department of Special Education 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.

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

##### **Master of Education with Special Education Concentration**

The Master of Education with a Concentration in Special Education program is designed primarily for individuals who currently possess a teaching certificate in some other area and wish to add special education certification while earning a master's degree. If completed as prescribed, individuals will be eligible to sit for the special education certification exam for Pre K-8 or 7-12. Individuals who wish to earn the master's degree without certification may complete the program in order to enhance their entry level content knowledge.

##### ***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 GPA 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.

**Special Education (M.Ed.) outcomes**

1. Students will be competent special educators
2. Students will analyze the needs of students with disabilities or at risk for disabilities and develop goals and design as well as implement an individualized education plan
3. Students will exhibit behaviors consistent with the range of evidence-based model of education.

**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**

<b>Core Competencies</b> .....	<b>6 credits</b>
ED 520 INTRODUCTION TO RESEARCH .....	3
ED 578 PROFESSIONAL SEMINAR .....	3
<b>Specialization Courses</b> .....	<b>27 credits</b>
SPED 462: EDUCATIONAL ASSESSMENT .....	3
SPED 482: SPECIAL MATHEMATICS INSTRUCTION .....	3
SPED 500: CONTEMPORARY ISSUES IN SPECIAL EDUCATION .....	3
SPED 522: SPECIAL EDUCATION CLASSROOM ADMINISTRATION .....	3
SPED 526: CLINICAL PRACTICUM FOR HIGH INCIDENCE DISABILITIES .....	1
SPED 527: CLINICAL PRACTICUM FOR LOW INCIDENCE DISABILITIES .....	1
SPED 528: ASSISTIVE TECHNOLOGY .....	1
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
<b>Electives</b>	
SPED 418: EXCEPTIONALITIES IN THE REGULAR CLASSROOM or SPED 531: IMPACT OF DISABLING CONDITIONS One other special education 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.

**Certification Candidates**

Certification candidates are required to complete clinical experiences (Student Teaching SPED 554) for six credits, which can be counted toward the nine credits of electives.

**INTEGRATED MIDDLE LEVEL BACCALAUREATE AND MASTER OF EDUCATION WITH SPECIAL EDUCATION CONCENTRATION (ED 4-8/SPECIAL EDUCATION PRE-K-8)**

In order 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 has been created.

For this circumstance, those students wishing to matriculate to graduate school to receive Special Education certification would take the following courses as part of their undergraduate program: SPED 245, SPED 381, SPED 462, and SPED 482.

The students would be required to student teach in both the Middle level area and the Special Education area. The SPED 462, SPED 482, SPED 245, and SPED 381 courses would count on the undergraduate record and as competencies completed for the Master's of Education with Special Education Concentration.

**MASTER OF EDUCATION WITH SPECIAL EDUCATION CONCENTRATION AND MIDDLE LEVEL CERTIFICATION**

<b>Core Competencies</b> .....	<b>6 credits</b>
ED 520: INTRODUCTION TO RESEARCH .....	3
ED 578: PROFESSIONAL SEMINAR .....	3
<b>Specialization Courses</b> .....	<b>21 credits</b>
SPED 462: EDUCATIONAL ASSESSMENT*	
SPED 482: SPECIAL MATHEMATICS INSTRUCTION*	
SPED 500: CONTEMPORARY ISSUES IN SPECIAL EDUCATION	3
SPED 522: SPECIAL EDUCATION CLASSROOM ADMINISTRATION .....	3
SPED 526: CLINICAL PRACTICUM FOR HIGH INCIDENCE DISABILITIES .....	1
SPED 527: CLINICAL PRACTICUM FOR LOW INCIDENCE DISABILITIES .....	1
SPED 528: ASSISTIVE TECHNOLOGY .....	1
SPED 544: METHODS OF PRACTICUM HIGH INCIDENCE .....	3
SPED 546: METHODS OF PRACTICUM LOW INCIDENCE .....	3
SPED 567: SEMINAR ON ABA*	
SPED 580: SPECIAL READING INSTRUCTION*	
SPED 554: GRADUATE STUDENT TEACHING IN SPECIAL EDUCATION .....	6
SPECIAL EDUCATION/ REHABILITATIVE SCIENCE ELECTIVE .....	3
<b>TOTAL</b> .....	<b>30 Credits</b>

\* Completed in the mid-level undergraduate program  
 Student Teaching will occur after SPED 544 & 546 (block)

**INTEGRATED SECONDARY LEVEL BACCALAUREATE AND MASTER OF EDUCATION WITH SPECIAL EDUCATION CONCENTRATION (ED 7-12/SPECIAL EDUCATION PRE-7-12)**

For this circumstance, those students wishing to matriculate to graduate school to receive Special Education certification would take the following courses as part of their undergraduate program: SPED 245, SPED 381, SPED 462, and SPED 482.

The students would be required to student teach in both the Middle level area and the Special Education area. The SPED 462, SPED 482, SPED 245, and SPED 381 courses would count on the undergraduate record and as competencies completed for the Master’s of Education with Special Education Concentration.

**MASTER OF EDUCATION WITH SPECIAL EDUCATION CONCENTRATION AND MIDDLE LEVEL CERTIFICATION**

<b>Core Competencies</b> .....	<b>6 credits</b>
ED 520: INTRODUCTION TO RESEARCH.....	3
ED 578: PROFESSIONAL SEMINAR .....	3
<b>Specialization Courses</b> .....	<b>21 credits</b>
SPED 462: EDUCATIONAL ASSESSMENT*	
SPED 482: SPECIAL MATHEMATICS INSTRUCTION*	
SPED 500: CONTEMPORARY ISSUES IN SPECIAL EDUCATION	3
SPED 522: SPECIAL EDUCATION CLASSROOM ADMINISTRATION .....	3
SPED 526: CLINICAL PRACTICUM FOR HIGH INCIDENCE DISABILITIES .....	1
SPED 527: CLINICAL PRACTICUM FOR LOW INCIDENCE DISABILITIES .....	1
SPED 528: ASSISTIVE TECHNOLOGY .....	1
SPED 544: METHODS OF PRACTICUM HIGH INCIDENCE .....	3
SPED 546: METHODS OF PRACTICUM LOW INCIDENCE.....	3
SPED 567: SEMINAR ON ABA*	
SPED 580: SPECIAL READING INSTRUCTION*	
SPED 554: GRADUATE STUDENT TEACHING IN SPECIAL EDUCATION .....	6
SPECIAL EDUCATION/ REHABILITATIVE SCIENCE ELECTIVE.....	3
<b>TOTAL</b> .....	<b>30 Credits</b>

\* Completed in the mid-level undergraduate program  
 Student Teaching will occur after SPED 544 & 546 (block)

**Special Education PreK-8/7-12 Dual Certification with Master of Science in Special Education**

The Department of Special Education 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 and special mathematics

methods, 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 certification examination for special education as well as Reading Specialist Certification.

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 certification 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.

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

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

### **Master of Science Special Education -Advanced Study**

This online course of study is designed to enhance the practicing special educators' instruction and ability to advocate for students who are exceptional.

#### **M.S. SPECIAL EDUCATION 33 CREDITS**

SPED 500: CONTEMPORARY ISSUES IN SPECIAL EDUCATION	3
SPED 514: INTRODUCTION TO GIFTED EDUCATION .....	3
SPED 519: STATISTICAL APPLICATION FOR BEHAVIORAL SCIENCE .....	3
SPED 530: LEARNING DISABILITIES .....	3
SPED 567: SEMINAR IN ADVANCED APPLIED BEHAVIOR ANALYSIS .....	3
SPED 571: COMMUNITY ADJUSTMENT-FUTURES PLANNING FOR STUDENTS WITH DISABILITIES .....	3
SPED 597: COLLABORATION AND COOPERATION: IMPROVED TEACHING AND LEARNING OUTCOMES .....	3
SPED 620: ROLE DEVELOPMENT WITH PARENTS.....	3
SPED 632: POLICY AND PRACTICE IN SPECIAL EDUCATION ..	3
SPED 635: ADVANCED METHODS FOR PERSONS WITH AUTISM AND SEVERE DISABILITIES .....	3
OR	
SPED 636: ADVANCED METHODS FOR PERSONS WITH HIGH INCIDENCE DISABILITIES .....	3
SPED 700: THESIS OR OTHER 3 CREDIT SPECIAL EDUCATION ELECTIVE	

### **Graduate Assistantships**

The Department of Special Education regularly awards a number of graduate assistantships. Assistantships in special education 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. 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 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. In the lab, students have access to a variety of instructional and management software along with IBM 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.



## **ONLINE MASTER OF SCIENCE DEGREE REHABILITATIVE SCIENCES**

### **VENANGO COLLEGE SCHOOL OF HEALTH SCIENCES**

#### **Department of Human Services, Rehabilitation, Health and Sport Sciences**

**Mark Kilwein, Ph.D., Coordinator**

110A Special Education Center

Telephone: 814-393-2486

E-mail: [mkilwein@clarion.edu](mailto:mkilwein@clarion.edu)

[www.clarion.edu/academics/colleges-and-schools/venango-college/school-of-health](http://www.clarion.edu/academics/colleges-and-schools/venango-college/school-of-health)

**Graduate Faculty:** G. Clary, R. Feroz, M. Kilwein,  
M. Lepore, J. May

#### ***Program Objectives***

The Master of Science in Rehabilitation Program, within the Human Services, Rehabilitation, Health and Sport Sciences department is to provide opportunities that:

- reflect current knowledge and projected needs concerning counseling practice in a multicultural and pluralistic society;
- extend knowledge and skills in research, practice, administration, leadership, and the organization of service delivery;
- analyze technically complex and current issues within the field; and
- instill values of the need for career-long learning, service and commitment to the highest ethical standards.

The area of human services and rehabilitation intends to seek accreditation from the Council on the Accreditation of Counseling and Related Education Programs (CACREP) for this new clinical mental health counseling degree.

### **Online Master of Science in Rehabilitative Sciences**

The MS in Rehabilitative Sciences program is a 60-credit hour clinical mental health counseling program that is designed to meet the academic requirements established by the Pennsylvania State Board of Social Workers, Marriage and Family Therapists and Professional Counselors leading to the Licensed Professional Counselor (LPC) credential in Pennsylvania. This program is aimed at graduate students who are looking to enhance their career options by taking courses that can lead to eligibility for counseling licensure. Graduates work in a variety of human services areas including direct service or supervisory roles in private and public agencies. These settings include, but are not limited to, children and youth, delinquency and criminal justice, intellectual disabilities, addictions, mental health, and psychiatric rehabilitation.

While this degree is technically a hybrid of online and face to face instruction, the overwhelming majority of coursework will be delivered online. Several clinical courses will require a face to face component, which will be accomplished on weekends to accommodate working students and those who do not live within an easy commuting distance of the Clarion campus.

### **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 GPA 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 for students with GPAs below 3.0
- 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.

### **Student Learning Outcomes**

1. Students will select, administer and interpret mental health assessment tools.
2. Students will select, administer and evaluate intervention techniques and strategies, including mental health counseling.

3. Students will understand ethical and legal requirements, and perform work in an ethical manner and in accordance with pertinent law.
4. Students will be able to develop a good working relationship with clients, colleagues, and supervisors.
5. Students will be able to communicate findings and recommendations in a professional manner.

### **Degree Requirements**

Tentative Course Sequence:

### **60 CREDIT MASTERS IN REHABILITATIVE SCIENCE – 3 YEAR SEQUENCE**

#### **Year 1**

FALL	REHB 552: IDENTITY AND CULTURE REHB 530: HUMAN GROWTH ACROSS THE LIFESPAN
WINTER	ELECTIVES
SPRING	REHB 586: ADDICTION AND DUAL DIAGNOSIS REHB 592: FAMILY SYSTEMS
SUMMER	REHB 510: GROUP PROCESS REHB 538: CRISIS INTERVENTION IN COUNSELING ELECTIVES

#### **Year 2**

FALL	REHB 532: PROFESSIONAL ORIENTATION AND ETHICAL PRACTICE IN COUNSELING AND REHABILITATION REHB 542: THEORIES IN HELPING RELATIONSHIPS
WINTER	ELECTIVES
SPRING	REHB 537: LIFESTYLE AND CAREER DEVELOPMENT REHB 519: STATISTICAL APPLICATIONS & RESEARCH FOR THE BEHAVIORAL SCIENCES
SUMMER	REHB 591: DIAGNOSIS AND TREATMENT REHB 580: INTERVENTION STRATEGIES: COUNSELING SKILLS AND TECHNIQUES ELECTIVES

#### **Year 3**

FALL	REHB 525: CLINICAL TESTS AND MEASURES REHB 594: CLINICAL FIELD EDUCATION: PRACTICUM
WINTER	ELECTIVES
SPRING	REHB 593: INTEGRATION, CONSULTATION & COLLABORATION ELECTIVES REHB 595: CLINICAL FIELD EDUCATION & SUPERVISED INTERNSHIP EXPERIENCE
SUMMER	REHB 595: CLINICAL FIELD EDUCATION & SUPERVISED INTERNSHIP EXPERIENCE

- \* Students contemplating doctoral level 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) in lieu of the two available elective courses.





## **MASTER OF SCIENCE DEGREE SPEECH LANGUAGE PATHOLOGY**

### **VENANGO COLLEGE SCHOOL OF HEALTH SCIENCES**

#### **Department of Communication Sciences and Disorders**

**Janis Jarecki-Liu, Ph.D., Program Director, Chair,  
Graduate Program Coordinator**

114 Keeling Health Center  
Telephone: 814-393-2581  
E-mail: [jjareckiliu@clarion.edu](mailto:jjareckiliu@clarion.edu)  
[www.clarion.edu/csd](http://www.clarion.edu/csd)

**Graduate Faculty:** N. Armstrong (Clinical), S. Hall  
(Clinical), J. Jarecki-Liu, C. McAleer, M. McCarthy (Clinical),  
K. Staub

The Communication Sciences and Disorders (CSD) Department offers a graduate program leading to a master of science degree in speech language pathology. The master's of science education program in speech-language pathology at Clarion University of Pennsylvania is accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology (CAA) of the American Speech-Language-Hearing Association, 2200 Research Boulevard #310, Rockville, Maryland 20850, 800-498-2071 or 301-296-5700.



### **CSD Department Mission Statement**

The mission of the Communication Sciences and Disorders Department is to provide a high quality academic and clinical education which enables program graduates to become competent, fully credentialed speech-language pathologists serving the needs of the region and Commonwealth.

### **CSD Department Vision Statement**

The Communication Sciences and Disorders Department is dedicated to: 1) preparing students, per the tenants of best practices, with the knowledge and skills needed to effectively work with communicatively impaired individuals in a variety of clinical environments, 2) academic and clinical teaching excellence within the program, offering students quality educational opportunities and experiences, 3) providing a variety of effectual clinical services to the community at large, and 4) developing educated consumers of research who are committed to lifelong learning and professional development.

### **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 GPA for the baccalaureate degree of at least 3.0 on a 4.0 scale. GRE score of 146 for verbal reasoning, 141 for quantitative reasoning and 3.5 for analytical writing on the GRE. A full-admission status is required for graduate assistantship consideration.

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

- An applicant must have a minimum GPA of 2.75 on a 4.0 scale.
- Same GRE requirement as full admit. 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
- or minimum total score of 573 on the paper-based test

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 and three credits in physical sciences. 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 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 or Educational Specialist Certificate for Speech and Language Pathologist 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](http://www.ets.org/praxis).

### **Speech Language Pathology (MS) Outcomes**

1. Students will demonstrate adequate knowledge of principles of basic science and normal development in relation to speech, language and hearing for entry level into the profession.
2. Students will demonstrate knowledge of characteristics, etiologies, diagnostic and treatment methods for each disorder area within the scope of practice for Speech Language Pathology.
3. Students will be able to apply and integrate discipline-specific knowledge to develop and implement appropriate diagnostic and clinical management plans, providing services resulting in evidence-based practice in speech language pathology.
4. Students will demonstrate knowledge of professional and ethical standards of conduct.

### **Degree Requirements**

Students enrolled in the Speech Language Pathology Graduate Program are required to undergo a physical examination at the university Health Center before completing any clinical assignment at an off-campus site. The physical examination must include a record of immunity to tetanus, rubeola (red measles), mumps, rubella (German or three-day measles) and varicella (chicken pox). It also must include proof of freedom from active tuberculosis. Additionally, students should show proof of immunity to Hepatitis B. Students who do not show proof of current immunizations will not be permitted to enroll in CSD 522 Externship.

### **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 limited 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.



## GRADUATE COURSE DESCRIPTIONS

- |  |  |
|--|--|
| <p><b>ACTG 451 Actg Problems</b> <span style="float: right;"><b>3.00</b></span><br/>           A problem-oriented study of topics most often tested on the CPA exam. Includes inventory methods, long-term contracts, partnership, leases, consignments, installment sales, receivership, fiduciary accounting, and governmental accounting. Preparations for the practice portion of the CPA exam are emphasized. Prerequisite: ACTG 350. Spring Semester.</p> <p><b>ACTG 452 Adv Cost Actg</b> <span style="float: right;"><b>3.00</b></span><br/>           A study of advanced concepts of cost accounting to provide useful quantitative information for decision-making. Includes inventory valuation, cost allocations, joint-product costs, process costing, accounting systems, profit center costs, and segment performance measuring. Prerequisite: ACTG 352.</p> <p><b>ACTG 453 Prob Fed Tax Actg</b> <span style="float: right;"><b>3.00</b></span><br/>           Examines federal income tax concepts and compliance problems of partnerships, corporations, estates, and trusts. Briefly considers Social Security, estate, and gift taxation. Prerequisite: ACTG 353.</p> <p><b>ACTG 454 Comparative Actg Systems</b> <span style="float: right;"><b>3.00</b></span><br/>           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 on the interest and desires of students. Prerequisites: ACTG 251, 252, 350, 351, 354, CIS 223, and 301.</p> <p><b>ACTG 455 Not For Profit Entities</b> <span style="float: right;"><b>3.00</b></span><br/>           A study of the principles and practices of budgeting and accounting for activities that are operated for purposes other than making profits. Prerequisite: ACTG 351.</p> <p><b>ACTG 456 Advanced Actg</b> <span style="float: right;"><b>3.00</b></span><br/>           Considers modern development in accounting, including recent studies and pronouncements by accounting authorities such as the American Institute of Certified Public Accountants and the Securities and Exchange Commission. Analyzes the problems of accounting for consolidation and partnership equity. Emphasizes developing the student's technical and problem-solving abilities. Prerequisite: ACTG 351. On demand.</p> | <p><b>ACTG 461 International Actg</b> <span style="float: right;"><b>3.00</b></span><br/>           Studies the influence of cultural values on the practice and theory of accounting and developing sensitivity to the differences and similarities of different accounting systems. Includes consolidation, translation of foreign currency statements, inflation, replacement cost accounting of global-oriented corporations and harmonization of accounting standards. Prerequisite: ACTG 252.</p> <p><b>ACTG 463 Tax Planning</b> <span style="float: right;"><b>3.00</b></span><br/>           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.</p> <p><b>ACTG 490 Current Accounting Pronouncements</b> <span style="float: right;"><b>3.00</b></span><br/>           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.</p> <p><b>ACTG 499 Special Topics in Actg</b> <span style="float: right;"><b>3.00</b></span><br/>           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.</p> <p><b>ACTG 500 Financial Actg</b> <span style="float: right;"><b>2.00</b></span><br/>           A study of the principles and procedures for collecting, recording, summarizing, and reporting financial information. Each semester.</p> <p><b>ACTG 552 Management Accounting</b> <span style="float: right;"><b>3.00</b></span><br/>           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.</p> |
|--|--|



<b>ACTG 553</b>	<b>Personal Taxation</b> This course examines federal income taxation of individuals. The course explains the requirements of preparing Form 1040 and supporting forms and schedules. It stresses how to comply with applicable tax law and how to deal with the administration of such laws. Prerequisite: Financial Accounting.	<b>3.00</b>	
<b>ACTG 554</b>	<b>Advanced Auditing</b> 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).	<b>3.00</b>	
<b>ACTG 555</b>	<b>Internal Control</b> This course examines internal control of an organization. The course considers the role internal control plays in the audit of financial statements, and in forensic accounting and the detection of fraud. Prerequisite: ACTG 251 Financial Accounting or ACTG 354 Auditing. Offered as needed.	<b>3.00</b>	
<b>ACTG 650</b>	<b>Theory of Accounts</b> 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.	<b>3.00</b>	
<b>ACTG 652</b>	<b>Advanced Manag Actg</b> 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.	<b>3.00</b>	
<b>ACTG 653</b>	<b>Research Fed Taxation</b> 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.	<b>3.00</b>	
<b>ACTG 654</b>	<b>Advanced Forensic Accounting</b> This course examines the topics of forensic accounting and fraud. The course explains the procedures to conduct a forensic investigation and detect fraud by assessing risk factors and the internal control structure. It stresses the responsibility and liability of both management and the auditor. Prerequisite: ACTG 554 Advanced Auditing or ACTG 354 Auditing. Offered as needed.	<b>3.00</b>	
<b>ACTG 663</b>	<b>Business Taxation</b> The course examines federal income taxation of business entities, including partnerships, S-corporations, estate, and trusts. The course explains the requirements of preparing Forms 1165, 1120S, 1041 and supporting forms and schedules. It stresses how to comply with applicable tax law and how to deal with the administration of such laws. Prerequisite: Financial Accounting.	<b>3.00</b>	
<b>ACTG 690</b>	<b>Public Accounting</b> The course is the capstone course in the Master of Accountancy program. It is a culmination of all of the courses taken in the program. Specifically, the areas of Auditing and Attestation, Financial Accounting and Reporting, Regulation, and Business Environment and Concepts. These are the four areas of the uniform Certified Public Accounting exam. Although each of these four areas is covered in detail throughout the program, this course will focus on preparing the student to widen their knowledge of each of the four areas so that they are prepared to pass the uniform CPA examination. Prerequisite: Financial Accounting.	<b>3.00</b>	
<b>ART 517</b>	<b>Latin American Art</b> A study of selected art traditions in the Spanish and Portuguese and French-speaking Western Hemisphere, including ancient, medieval and contemporary examples. Contributions of native, African, European, and other cultures will be considered. This is a writing	<b>3.00</b>	intensive course with frequent essays, hands-on art making processes, a research project, and a required museum field trip. The course may be offered on location in Central or South American or the Caribbean, and will become part of the Latin American and Caribbean studies minor program. Visits and apprenticeships to artist' and artisans' workshops will be arranged when possible. Students who received credit for ART 217 may not subsequently enroll in ART 417/517.
	<b>ATSW 542</b>	<b>Introduction to Corrective Exercise</b>	<b>3.00</b> This course entails the investigation of the rationale for corrective exercise training and understanding human movement science and human movement impairments for the practicing or prospective professional. It will also include the learning of health risk appraisals, assessment strategies, and the corrective exercise continuum.
	<b>ATSW 543</b>	<b>Corrective Exercise Application</b>	<b>3.00</b> This course entails the investigation of specific corrective exercise strategies for the practicing or prospective professional. These include: inhibitory, activation, and integration skills as well as corrective exercise techniques for the foot and ankle, knee, lumbo-pelvic-hip complex, shoulder, elbow, wrist, cervical spine and other limitations that result from disabling conditions. Prerequisite: ATSW 542 - Introduction to Corrective Exercise
	<b>ATSW 556</b>	<b>Athl Injur: Prev, Recog &amp; Eval</b>	<b>3.00</b> Presents the latest principles and techniques for preventing common athletic injuries. New theories on the care of injuries are discussed and implemented. Students will be provided with the knowledge and skills necessary to help provide a safe environment for athletes while they are participating in sports. Also, in an emergency, students will learn how to help sustain life and minimize the consequences of injury or sudden illness until medical help arrives. Students in this class will earn a Sport Safety Training Certificate from the Red Cross. Summer course for Act 48 requirements.
	<b>ATSW 557</b>	<b>Phys Fund of Ath Coaching</b>	<b>3.00</b> Study of the scientific principles of physiology and how they can be applied to athletic conditioning. Both muscular and energy fitness development are covered in detail. Sport nutrition and a wide variety of training methods are covered. Summer course for Act 48 requirements.
	<b>ATSW 558</b>	<b>Prin &amp; Prob of Ath Coaching</b>	<b>3.00</b> Study of modern theory and practices of athletic coaching, including: philosophy, sport psychology, risk management, team management, self management, teaching sport skills, and problems and issues of concern in athletics. Summer course for Act 48 requirements.
	<b>ATSW 559</b>	<b>Kinesiological Found Ath Coach</b>	<b>3.00</b> Helps coaches understand basic scientific information concerning athletic movement. Biomechanics emphasize the analysis of motion and application of force. Applies scientific principles to effective teaching of athletic skills. Summer course for Act 48 requirements.
	<b>BCHM 453</b>	<b>Biochemistry</b>	<b>3.00</b> A study of the chemical properties of proteins, nucleic acids, carbohydrates, and lipids. An introduction to bioenergetics and carbohydrate metabolism. In addition, students will gain an understanding of biomolecule structure/function relationships, basic biochemical and energetic pathways, and how biochemical energy is processed for survival. The ultimate goal of this course is for the student to gain knowledge and understanding of biochemical principles in order to think critically, analytically, and creatively in applying these principles to solving problems. Prerequisite: CHEM 251 or 254. Three hours lecture. Fall, annually.
	<b>BCHM 454</b>	<b>Biochemistry II</b>	<b>3.00</b> This course is a continuation of CHEM 453. Topics will include carbohydrate, lipid and amino acid metabolism, bioenergetics, vitamins and minerals, control and regulation of metabolic pathways, and the nature of



- metabolic and genetic diseases. Prerequisite: CHEM 453. Three hours lecture. Spring annually.
- BCHM 463 Biochem Lab 1.00**  
Experiments involving the major techniques in modern biochemistry. Emphasizes separation and purification techniques, kinetic studies, quantitative determinations, and analytical instrumentation in biochemistry and biotechnology. Co/Prerequisite: BCHM 453. Three hours laboratory. Fall annually.
- BIOL 460 Comp Vertebrate Anatomy 4.00**  
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. Three lectures and three laboratory hours weekly. Prerequisites: Two semesters of Intro Biology, or permission of instructor. Frequency: Alternate years
- BIOL 464 Developmental Biology 3.00**  
The course focuses on the major processes in multicellular development and embryogenesis and their underlying biochemical mechanisms. Throughout the semester, students will study various processes, such as cell differentiation, intra- and inter-cellular induction, and organismal morphogenesis. The class will primarily focus on animal or vertebrate development, though invertebrate and plant model organisms will also be examined. Prerequisites: BIOL 201, BIOL 203, CHEM 251, CHEM 252, CHEM 261, and CHEM 262, all with a C or better. Fall, alternate years.
- BIOL 500 Graduate Seminar 2.00**  
A survey of current literature, concepts, and theories from selected fields of biology. Two discussion hours weekly. By arrangement.
- BIOL 502 Biometry 3.00**  
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 4.00**  
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 Genomics and Bioinformatics 3.00**  
The new disciplines of genomics, proteomics and bioinformatics attempt to analyze the deluge of DNA sequence data currently being generated. Topics include comparative structure of prokaryotic and eukaryotic genomes, genetic variation in humans and pharmacogenetics, and genomic circuits and complex diseases. Students will be introduced to the computational techniques and algorithms of Bioinformatics, and use them to mine information about a gene and genome of their choice. Designed for students in biology, molecular biology, evolutionary biology, biochemistry, industrial mathematics and computational science. Two hours of lecture and three hours of lab. Prerequisite: BIOL 201 and MATH 260 OR MATH 221 or permission of instructor. Fall
- BIOL 505 Ecological Applications 3.00**  
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 3.00**  
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 & Mgmt 3.00**  
An in-depth approach to the ecology and management of wildlife species - birds, mammals, amphibians and reptiles - at scales ranging from populations to landscapes. Lecture and discussion will focus on current topics in wildlife ecology and management such as the dynamics of exploited populations, non-game wildlife, population regulation by predators, parasites, and diseases, habitat evaluation and management, and restoration of wildlife populations. Laboratory will emphasize descriptive and investigative studies of wildlife in local ecosystems. Two lecture and three laboratory hours weekly. Prerequisite: BIOL 202 or equivalent. BIOL 305 desirable.
- BIOL 520 Terrestrial Botany 3.00**  
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 3.00**  
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 3.00**  
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 Exp Vertebrate Ecology 3.00**  
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 Freshwater Ichthyology 3.00**  
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 3.00**  
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 3.00**  
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 3.00**  
A field-based course emphasizing the identification and natural history of common vascular plants native to western Pennsylvania and methods used to study them. Course will be taught at a time when the spring flora is conspicuous. Spring, alternate years.
- BIOL 528 Ornithology 3.00**  
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.	
<b>BIOL 530</b>	<b>Biology of Cancer</b> This course presents an in depth overview of both the scientific and clinical aspects of cancer with an emphasis on the cellular, molecular, and genetic models of cancer development in humans. Topics include: cancer epidemiology, biochemical processes of malignant process, TNM classification, modern advances in tumor biology and molecular biology including the effects of a variety of agents (chemical, radiation, viruses, and oncogenes) that cause human cancer. Furthermore, the course examines the major types of cancer as well as present methods of cancer prevention and treatment. Three lecture hours weekly. Prerequisite: BIOL 201 and BIOL 203. Fall, alternate years.	<b>3.00</b>
<b>BIOL 532</b>	<b>Field Ornithology</b> 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.	<b>3.00</b>
<b>BIOL 540</b>	<b>Environmental Microbiology</b> Explores the diversity, distribution, and activities of microorganisms in natural, managed and extreme environments, with a particular focus on microbial communities, interactions and environmental processes. Laboratory sessions and field experiences will be on an arranged basis. Prerequisite: BIOL 341 or permission of Instructor. Spring, alternate years	<b>3.00</b>
<b>BIOL 543</b>	<b>Virology</b> 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.	<b>3.00</b>
<b>BIOL 544</b>	<b>Immunology</b> Study of the mammalian immune system. The course will focus on the parts of the system and how they function together to produce the varied and complex regulated responses that provide innate and adaptive immunity. The course will also incorporate case studies involving dysfunction and pathophysiology of the immune system. Essential laboratory principles and skills involving microscopy (light and fluorescence), ultraviolet and visible spectroscopy, affinity chromatography, mammalian virus culture, enzyme linked immunosorbent assay, electrophoresis and blotting are presented. Three lecture hours weekly and three laboratory hours weekly. Prerequisites: BIOL 201, 203, 341; CHEM 251, 261, 252, and 262, all with a C or better. Spring annual	<b>4.00</b>
<b>BIOL 546</b>	<b>Pathogenic Micro</b> Study of the infectious agents of mammals and the diseases that result from infection by these agents. The course will focus on bacterial agents, their diagnosis and treatment. The laboratory portion of the course incorporates experiential learning of diagnosis procedures and case studies involving examples of pathogenic organisms. Three lecture hours and three laboratory hours weekly. Prerequisites: BIOL 201, 203, 341; CHEM 251, 261, 252, and 262, all with a C or better. Fall annually.	<b>4.00</b>
<b>BIOL 550</b>	<b>Cell Physiology</b> Study of the regulatory processes that occur within the eukaryotic cell that govern homeostasis and allow for adaptive change. The course will focus on membrane biochemistry, transport, protein sorting, cell signaling, cytoskeletal nanomotors, and cell specialization. The laboratory portion of the course incorporates experiential learning of basic procedures that allow	<b>4.00</b>
<b>BIOL 551</b>	<b>Adv Animal Physiology</b> A detailed review of the comparative physiology of animals, including water and ion regulations, circulation, respiration, nutrition, nervous activity, endocrine functions, and responses to temperature, light, gases, and pressure. Includes literature review and individual investigations. Two lecture and three hours laboratory weekly. Prerequisites: Cell Biology and Organic Chemistry, or permission of instructor.	<b>3.00</b>
<b>BIOL 552</b>	<b>Adv Plant Physiology</b> 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, environmental and stress physiology. Two lecture and three lab hours weekly. Prerequisites: BIOL 201, 203, and CHEM 254. Spring, odd-numbered years.	<b>3.00</b>
<b>BIOL 555</b>	<b>Endocrinology</b> A survey of the chemical and physiological principles of hormonal integrations in animals. Three lecture hours per week.	<b>3.00</b>
<b>BIOL 556</b>	<b>Entomology</b> 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.	<b>3.00</b>
<b>BIOL 559</b>	<b>Physiological Ecology</b> 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 instructor's permission. Spring, alternate years.	<b>3.00</b>
<b>BIOL 563</b>	<b>Behavioral Ecology</b> 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)	<b>3.00</b>
<b>BIOL 564</b>	<b>Developmental Biology</b> The course focuses on the major processes in multicellular development and embryogenesis and their underlying biochemical mechanisms. Throughout the semester, students will study various processes, such as cell differentiation, intra- and inter-cellular induction, and organismal morphogenesis. The class will primarily focus on animal or vertebrate development, though invertebrate and plant model organisms will also be examined. Prerequisites: BIOL 201, BIOL 203, CHEM 251, CHEM 252, CHEM 261, and CHEM 262, all with a C or better or permission of instructor. Fall, alternate years.	<b>3.00</b>
<b>BIOL 570</b>	<b>Id-Quant-Bac-Fung</b>	<b>4.00</b>
<b>BIOL 571</b>	<b>Habitat Ecology-Aquatic</b> 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)	<b>4.00</b>
<b>BIOL 572</b>	<b>Terrest Comm Ecology</b> A study of the composition, distribution, and dynamics of plants and animals in selected terrestrial communities. Major biomes to be included will	<b>6.00</b>

	be grassland, deciduous forest, coniferous forest, and tundra. Summers only: six weeks. (3 credits at Pymatuning)	
<b>BIOL 573</b>	<b>Freshwater Ecology</b>	<b>3.00</b>
	A field-oriented study of the physics, chemistry, and biology of standing and flowing inland waters.	
<b>BIOL 574</b>	<b>Ecol of Aquatic Insects</b>	<b>3.00</b>
	Examination of the ecological adaptations of aquatic insects with special emphasis on morphology, habitat, and trophic relationships. (Pymatuning)	
<b>BIOL 575</b>	<b>Experimental Ecology</b>	<b>3.00</b>
	Study of designs suitable for investigation of natural populations and communities stressing statistical analysis, and the logical control of experiments in natural situations. (Pymatuning)	
<b>BIOL 576</b>	<b>Fungal Ecology</b>	<b>3.00</b>
	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)	
<b>BIOL 577</b>	<b>Forest Ecology</b>	<b>4.00</b>
	An in-depth approach to the structure, function and dynamics of forest ecosystems at multiples 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.	
<b>BIOL 578</b>	<b>Biome Studies</b>	<b>3.00</b>
	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.	
<b>BIOL 579</b>	<b>Alpine Ecology</b>	<b>3.00</b>
	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)	
<b>BIOL 582</b>	<b>Evolution</b>	<b>3.00</b>
<b>BIOL 583</b>	<b>Molecular Biology</b>	<b>4.00</b>
	Study of the structural and functional relationships of the major biological macromolecules, emphasizing nucleic acid biology. Laboratory emphasizes current systems, methods, and applications of biotechnology, including recombinant DNA techniques. Two lecture and four laboratory hours weekly. Prerequisites: BIOL 201, 203, 341; CHEM 251, 261, 252, and 262, all with a C or better. Annually.	
<b>BIOL 585</b>	<b>Biotechnology</b>	<b>4.00</b>
	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.	
<b>BIOL 591</b>	<b>Biogeography</b>	<b>3.00</b>
	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.	
<b>BIOL 592</b>	<b>Animal Behavior</b>	<b>3.00</b>
	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: Completion of courses in principles of ecology and genetics or permission of instructor. Alternate years.	
<b>BIOL 593</b>	<b>Comm &amp; Ecosys Dynamics</b>	<b>4.00</b>
	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.	
<b>BIOL 594</b>	<b>Population Biology</b>	<b>3.00</b>
	This course deals with the empirical, experimental, and theoretical aspects of the structure, growth, and evolution of biological populations. The course will take a holistic approach to how population genetics and population ecology interact to produce observed population structure and dynamics. Two hours lecture/discussion and three lab hours weekly. Prerequisites: BIOL 202, MATH 260, or permission of the instructor. Spring, odd-numbered years.	
<b>BIOL 597</b>	<b>Evolutionary Ecology</b>	<b>3.00</b>
	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.	
<b>BIOL 600</b>	<b>Special Prob in Biol</b>	<b>3.00</b>
	By permission.	
<b>BIOL 700</b>	<b>Research &amp; Thesis</b>	<b>6.00</b>
	Prerequisite: Successful oral defense of prospectus seminar	
<b>BSAD 503</b>	<b>Quant Anal for Bus Dec</b>	<b>3.00</b>
	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, decision theory. Opportunity is provided for students to become familiar with the use of several computer statistical software packages. Applications include domestic and international situations. Prerequisites: MBA Foundations courses in Economics and Business Statistics and Business Mathematics. Basic computer competency is required.	
<b>BSAD 540</b>	<b>Legal &amp; Ethical Environment of Business</b>	<b>3.00</b>
	This course is design to provide 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. Prerequisite: Graduate standing.	
<b>BSAD 574</b>	<b>Legal and Ethical Issues of Healthcare</b>	<b>3.00</b>
	This course provides an overview of the legal oversight and regulation of the U.S. health care system. The discussion examines the principle and practical applications of the laws that shape the decisions of providers, products, and markets for healthcare while taking into consideration the social and ethical issues that arise with policy implementation. No prior study of law is required. Offered as needed.	
<b>BSAD 637</b>	<b>Multinational Business Seminar</b>	<b>6.00</b>
	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	
<b>BSAD 661</b>	<b>Global Environ of Business</b> This course is designed to provide 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 will be 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 will be stressed. Prerequisites: MBA foundation course in Macroeconomics.	<b>1.50</b>
<b>BSAD 690</b>	<b>Strategic Mgmt &amp; Bus Policy</b> 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.	<b>3.00</b>
<b>BSAD 699</b>	<b>Special Problems</b> 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.	<b>6.00</b>
<b>CHEM 485</b>	<b>Prob Chem Ed</b> In-depth exploration of a problem area in chemistry education according to the student's need or interest under the direction of a faculty member. Admission only by consent of instructor and approval of department chair. Prerequisite: Junior standing or consent of the department. Not open to chemistry majors in the liberal arts or Bachelor of Science curriculum.	<b>3.00</b>
<b>CIS 402</b>	<b>Data Base System Management</b> A study of data base management systems with hands-on experience. Students investigate the analysis, design, implementation, and maintenance of a modern data base management system. Prerequisite: CIS 301.	<b>3.00</b>
<b>CIS 403</b>	<b>Data Communications</b> Focuses on the OSI model of data communications and uses the model as the basis for discussions of protocols, topologies, transmission media, and communications security. The TCP/IP protocol suite is examined in detail. Prerequisite: CIS 303.	<b>3.00</b>
<b>CIS 462</b>	<b>Simulation/Modeling</b> Covers the advantages and disadvantages of using computer simulation in modeling. Students learn and practice techniques of computer simulation. Prerequisites: CIS 244 or 330.	<b>3.00</b>
<b>CIS 520</b>	<b>Intro to Data Warehousing</b> This course provides students with the practical skills necessary to understand and implement a data warehouse to support decision-making. Data warehouse development methodology and issues surrounding the planning of the data warehouse will be investigated as well as data quality and metadata in the data warehouse. A hands-on project is required including the analysis, transformation and loading of data into a data warehouse and the development of the data architecture and physical design. Prerequisite: CIS 402 (or similar) or permission of Instructor. Offered fall semesters.	<b>3.00</b>
<b>CIS 570</b>	<b>Project Management</b> 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	<b>3.00</b>
<b>CIS 649</b>	<b>Ed Tech Leadership</b> Involves a survey or various theories, models, and styles of leadership, followed by the application of leadership skills in teacher-pupil, teacher-colleague, 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.	<b>3.00</b>
<b>CIS 650</b>	<b>Adv Technology Applications</b> This course 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. Prerequisite: COMM 545, or permission of instructor. Summers/spring annually.	<b>3.00</b>
<b>CIS 651</b>	<b>Deploying Info Tech Infrs</b> Focuses on the strategies involved in the provisioning and maintenance of information technology infrastructure. Provides students with the knowledge and skills necessary to plan, organize, implement and control information technology resources. Key topics include identifying information infrastructure; defining the range of information technology leadership roles; and illustrating current best practices for managing information technology assets. Offered annually.	<b>3.00</b>
<b>CMST 602</b>	<b>Seminar Conflict Resolution</b> This course is designed to help students develop strong communication skills for reacting, interacting, and intervening in conflict situations. It 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.	<b>3.00</b>
<b>CMST 603</b>	<b>Organizational Communication</b> This course is designed to help students develop communication skills that enable them to become change masters in the organizations and work groups they are part of. 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 in organizational transformation and change; the politics of communication in organizations; communication issues in collaboration and negotiation; communication leadership; managing email and written communication; risk comm	<b>3.00</b>
<b>COM 431</b>	<b>Public Relations Ethics</b> Addresses ethics and professional responsibility in public relations. Through study of theory, cases and current events, students will learn to identify the ethical and moral dimensions of issues that arise in the practice of public relations. Students will gain the knowledge and skills necessary to reach and justify ethical decisions, and a sense of personal and professional responsibility. Prerequisites: COM 140, COM 315 and COM 443, with a grade of C or above in each course. Annually	<b>3.00</b>
<b>COM 441</b>	<b>Adv Media Writing</b> Extensive work in research, writing, and marketing of written products for magazines, newspapers, and other publications. Requires selection and acquisition of appropriate photographs and graphics to complement the articles. Prerequisites: COM 140. Spring, annually.	<b>3.00</b>



- COM 443 Public Relations Writing 3.00**  
Provides students with instruction and experience in writing for the public relations and advertising professions. Projects include news releases, media kits, advertisements, newsletters, brochures, and web pages. Coursework also stresses ethical and legal responsibilities of the public relations writer, research, persuasion, and visual elements of communication. Prerequisites: COM 100 and 140.
- COM 524 Crit Analy of Mass Media 3.00**  
This course focuses on critical frames of analysis applied to various mass media messages, such as film, recordings, television, and print media. Rhetorical, semiotic, ideological, and dramatic modes of analysis are applied in historical and current media contexts. Focus may be made on a specific medium.
- COM 525 Mass Communication Theory 3.00**  
This course 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.
- COM 551 Public Relations Foundations 3.00**  
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.
- COM 552 Journalism Foundations 3.00**  
Provides students with a historical, theoretical and practical overview of the traditional principles and practices of journalism and an analysis of the applicability of those characteristics in today's media environment. This course will focus on a critical examination of the history, principles and practices of American journalism. It will address the functions of the press in a democratic society, and students will examine the structure and nature of the press and media's relationship with government and the public.
- COM 558 Society, Law & Media Tch 3.00**  
This course will examine the social impact and regulation of media technology in society. The course will explore 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. Every other year.
- COM 559 Mgmt Comm Process 3.00**  
This course will define and apply the general principles of management-planning, organizing, staffing, directing and controlling - to the design and administration of communication organizations and communication functions. This course relates behavioral variables to the understanding and motivation of employees.
- COM 572 Design Www Media 3.00**  
This course will prepare students to design web-based media. Students will learn to structure web sites, layout copy, use color and text effectively, position images, and deploy sound and video on pages as necessary.
- COM 573 Publ Relat Ethics & Prof Resp 3.00**  
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. Prerequisite: COM 551.
- COM 574 Publ Rela Cases & Campaigns 3.00**  
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. Prerequisite: COM 551.
- COM 575 Principles of Integrated Communications 3.00**  
This course examines the theories and techniques of integrated communications, including public relations, advertising, marketing, sales promotions, and personal selling. It explores how all forms of communications 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. Prerequisite: COM 551.
- COM 591 Independent Study 2.00**  
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. 1 or 2 credit hours.
- COM 599 Special Topics 3.00**  
Focuses on a single, broad contemporary topic of current interest in communication and related fields. Course content varies from semester to semester. Topics to be considered will be announced in advance. May be taken three times for credit. No prerequisite.
- COM 602 Seminar Conflict Resolution 3.00**  
This course is designed to help students develop strong communication skills for reacting, interacting, and intervening in conflict situations. It 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.
- COM 603 Organizational Communication 3.00**  
This course is designed to help students develop communication skills that enable them to become change masters in the organizations and work groups they are part of. 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 in organizational transformation and change; the politics of communication in organizations; communication issues in collaboration and negotiation; communication leadership; managing email 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.
- COM 621 Mass Comm Research 3.00**  
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. 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.
- COM 642 Adv Public Relations Writing 3.00**  
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. Prerequisite: MMAJ 551

<b>COM 650</b>	<b>Adv Technology Applications</b>	<b>3.00</b>	This course 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. Prerequisite: COMM 545, or permission of instructor. Summers/spring annually.	
<b>COM 651</b>	<b>Deploying Info Tech Infrs</b>	<b>3.00</b>	Focuses on the strategies involved in the provisioning and maintenance of information technology infrastructure. Provides students with the knowledge and skills necessary to plan, organize, implement and control information technology resources. Key topics include identifying information infrastructure; defining the range of information technology leadership roles; and illustrating current best practices for managing information technology assets. Offered annually.	
<b>COM 700</b>	<b>Graduate Capstone Project</b>	<b>6.00</b>	Requires the student to complete either a thesis, internship, or portfolio graduate capstone project in communication under the supervision of a faculty member and committee. Permission to enroll in this capstone project is by invitation of the graduate faculty in the Department of Communication. Three or six credits a semester for an overall total of six credits. Prerequisite: COM 621.	
<b>CSD 472</b>	<b>Sem In Speech Science</b>	<b>3.00</b>	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.	
<b>CSD 500</b>	<b>Aphasia</b>	<b>3.00</b>	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.	
<b>CSD 505</b>	<b>Artic &amp; Phono Diso Child</b>	<b>3.00</b>	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.	
<b>CSD 510</b>	<b>Sem in Neuropathology</b>	<b>3.00</b>	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.	
<b>CSD 512</b>	<b>Clinical Practice I</b>	<b>1.00</b>	Course entails practice, under supervision, in assessment and management of individuals with disorders of speech language or hearing.	
<b>CSD 513</b>	<b>Comm Disorders Mult Population</b>	<b>1.00</b>	Emphasizes nature and treatment of 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. Prerequisite: Graduate standing. Fall semester, annually
<b>CSD 515</b>	<b>Maxillofacial Anomalies</b>	<b>3.00</b>	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.	
<b>CSD 520</b>	<b>Lang Disorders in Child</b>	<b>3.00</b>	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.	
<b>CSD 522</b>	<b>Clinical Externship</b>	<b>12.00</b>	Supervised observation of and participation in school and/or clinic environments. Prerequisite: CSD 540.	
<b>CSD 525</b>	<b>Stuttering</b>	<b>3.00</b>	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.	
<b>CSD 530</b>	<b>Voice</b>	<b>3.00</b>	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.	
<b>CSD 533</b>	<b>Instrm &amp; Psychoacoustics</b>	<b>6.00</b>	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.	
<b>CSD 534</b>	<b>Otolaryngology</b>	<b>1.00</b>	An introduction to the profession of otolaryngology. The course is taught by a board-certified physician and offered once a year.	
<b>CSD 535</b>	<b>Audiology Seminar I</b>	<b>6.00</b>	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.	
<b>CSD 540</b>	<b>Clinical Practice</b>	<b>6.00</b>	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.	
<b>CSD 550</b>	<b>Motor Speech Disorders</b>	<b>3.00</b>	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.	
<b>CSD 554</b>	<b>Professional Practicum</b> 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.	<b>3.00</b>
<b>CSD 560</b>	<b>Counseling in Comm Disorders</b> 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.	<b>3.00</b>
<b>CSD 575</b>	<b>Augmentative &amp; Altern Comm</b> 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. Fall, annually.	<b>3.00</b>
<b>CSD 589</b>	<b>Research Meth Comm Disorders</b> Research literature and methods in communication disorders with an emphasis on research design and application.	<b>3.00</b>
<b>CSD 590</b>	<b>Research</b> 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.	<b>6.00</b>
<b>CSD 592</b>	<b>Dysphagia</b> 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.	<b>3.00</b>
<b>CSD 598</b>	<b>Special Topics</b> 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.	<b>6.00</b>
<b>CSD 599</b>	<b>Independent Study Csd</b> 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.	<b>3.00</b>
<b>DA 530</b>	<b>Analytical Methods and Optimization</b> This course is an introduction to core quantitative methods for decision making. The course will cover optimization methods, Monte Carlo analysis, decision analysis, and methods to evaluate decisions ex post. The course will also introduce students to various scientific computing languages used in these tasks such as python/numphy/scipy., SAS, R, Julia, and Stata among others. An integral part of this course is the application of database knowledge learned in the prior courses in the program. All data in this course will be stored in an appropriate relational (SQL) or document	<b>3.00</b>
<b>DA 540</b>	<b>Applied Data Mining</b> This course covers applied data mining methods on large data sets. Particular methods covered are principal components analysis, survival analysis, clustering, factor analysis, and other methods of dimension reduction. An integral part of this course is the application of database knowledge learned in the prior courses in the program. All data in this course will be stored in an appropriate relational (SQL) or document oriented (NoSQL) database. Students will then query the database for the data they will use in their analyses. This thorough incorporation of database methods into the course makes this offering substantially different from any other non-analytics courses offered at Clarion University. Prerequisite: ECON 221 or equivalent, Pre-Co-requisite: CIS 240G, CIS 520.	<b>3.00</b>
<b>DA 550</b>	<b>Predictive Analytics</b> This course covers various methods of classification and prediction. In particular, the course covers neural net models, machine learning, support vector machines, logit/probit regressions, nonparametric regression models, and advanced time series methods, among other topics. Time series methods will include filtering algorithms which update predictions with new data and the use of large cross-section and time series data sets. Prerequisite or Co-requisite: CIS 520, DA 530.	<b>3.00</b>
<b>DA 560</b>	<b>Data Visualization</b> This course covers the goals and methods of data visualization. Specifically, the course covers visualization for exploratory data analysis, decision making, and exposition. The course also covers interactive graphics, with particular attention to those viewed and manipulated through the web browser, and graphics for large datasets. All data in this course will be stored in an appropriate relational (SQL) or document oriented (NoSQL) database. Students will then query the database for the data they will use in their analyses. This thorough incorporation of database methods into the course makes this offering substantially different from any other non-analytics courses offered at Clarion University. Prerequisite: DA 550.	<b>3.00</b>
<b>DA 570</b>	<b>Big Data Analytics</b> This course covers methods to store and analyze large datasets ('Big Data'). Particular focus will be on Hadoop, and MapReduce technology. Further, the course covers No SQL, Key-value, concepts for handling unstructured data. There will be select topics for analytics on 'Big Data'. An integral part of this course is the application of database knowledge learned in the prior courses in the program. All data in this course will be stored in an appropriate relational (SQL) or document oriented (NoSQL) database. Students will then query the database for the data they will use in their analyses. This thorough incorporation of database methods into the course makes this offering substantially different from any other non-analytics courses Offered at Clarion University. Prerequisite: DA 550.	<b>3.00</b>
<b>DA 580</b>	<b>Analytics Capstone</b> This capstone course in the Masters in Data Analytics program incorporates skills learned throughout the program into real-world analytics project. An integral part of this course is the application of database knowledge learned in the prior courses in the program. All data in this course will be stored in an appropriate relational (SQL) or document oriented (NoSQL) database. Students will then query the database for the data they will use in their analyses. This thorough incorporation of database methods into the course makes this offering substantially different from any other non-analytics courses offered at Clarion University. Prerequisite: DA 560 and DA 570.	<b>3.00</b>

<b>ECH 413</b>	<b>Leadership in Early Childhood Settings</b> <b>3.00</b> 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. Focus will be on leadership skills in advocacy for families and educational and social systems, and other issues related to families and young children. Grant-writing, advocacy and ethics of professionalism will also be explored. Field experience will consist of a "Stand for Children" advocacy project. Prerequisites: ECH 231, ECH 235, ECH 323, ECH 245, ECH 260. Taken concurrently with ECH 301, ECH 310, ECH 322, ECH 323, ECH 325. Each semester.	
<b>ECH 420</b>	<b>Iss &amp; Advocacy in Ech Ed</b> <b>3.00</b> Examines incidental learning of children through their interactions with the people and society's major institutions. In-depth exploration of the family as a diverse and primary institution influencing children and the interface with the educational and social systems. Analyzes current issues and public policies as related to systems theory. Topics vary by semester. Emphasizes advocacy and ethics of professionals to help young children cope with issues that affect them and will contribute to institutional change to meet the needs of young children. Prerequisite: ECH 322 and ECH 413. Annually.	
<b>ECH 500</b>	<b>Early Childhood Foundations</b> <b>3.00</b> This course is designed to provide an overview of the early childhood profession, child development theory, historical contexts of early childhood, early childhood learning environments and curriculum. The focus is to provide a foundation for early childhood professionals in order to be able to enhance and support children's learning and development through developmentally appropriate pedagogy. Emphasizes the roles of early childhood professions, including legal and ethical responsibilities. Requires participation with children of different age groups in a variety of early childhood settings. Fall semester or as needed.	
<b>ECH 501</b>	<b>Early Child Curr &amp; Instruct</b> <b>3.00</b> Early Childhood Curriculum and Instruction focuses on developmentally appropriate curriculum design and implementation and the Pennsylvania Standards Aligned System, including the Common Core 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. Offered on demand.	
<b>ECH 502</b>	<b>Early Child Curr &amp; Assessment</b> <b>3.00</b> Early Childhood Curriculum and Assessment will focus 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.	
<b>ECH 503</b>	<b>Early Childhood Curriculum Content</b> <b>3.00</b> Early Childhood Curriculum Content will focus on the content related to areas of creative arts, health and wellness, science, social studies, mathematics and technology. Emphasis will be on developmentally effective presentation of the content areas, including play, and integration of the content areas. Class participants will use standards to plan content related learning experiences for children. Requires implementing content-related learning experiences for young children of different age groups in a variety of early childhood settings.	
<b>ECH 505</b>	<b>Healthy Infant, Toddler &amp; Child</b> <b>3.00</b> 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	
<b>ECH 510</b>	<b>Leadership in Ech Ed &amp; Care</b> <b>3.00</b> Leadership in Early Childhood Education and Care will explore and develop 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 ed assessment, licensing and accreditation procedures, financial matters, curriculum, environment, policies, management skills, community support, and staff development and mentoring. Summer, on demand.	
<b>ECH 512</b>	<b>Sprt Chil In Homes,Sch &amp; Comm</b> <b>3.00</b> 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 of 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, homes and communities.	
<b>ECH 520</b>	<b>Issues and Advocacy in Early Childhood Education</b> <b>3.00</b> Examines incidental learning of children through their interactions with the people and society's major institutions. In-depth exploration of the family as a diverse and primary institution influencing children and the interface with the educational and social systems. Analyzes current issues and public policies as related to systems theory. Topics vary by semester. Emphasizes advocacy and ethics of professional to help young children cope with issues that affect them and will contribute to inst itutional change to meet the needs of young children. Annually	
<b>ECON 461</b>	<b>Int'l Fin Econ &amp; Capital Mkts</b> <b>3.00</b> An applied analysis of international economics and the behavior of 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 transfer. Prerequisite: ECON 361, or consent of the instructor. Spring, biennially.	
<b>ECON 470</b>	<b>Business Cycles and Forecastng</b> <b>3.00</b> Explores theories of business fluctuations; applications of modern income theory to business cycles; examination of business cycle indicators and forecasting techniques. Prerequisites: ECON 211 and 222, or consent of the instructor. Spring, annually.	
<b>ECON 490</b>	<b>Hist of Econ Thgt</b> <b>3.00</b> Examines development of economic ideas from ancient times to the present. Emphasizes the period from Adam Smith onward. Considers the economic and political environment in which ideas emerged as well as the leading economists advancing or defending the ideas. Prerequisites: ECON 211 and 212 and senior standing. Spring, annually.	
<b>ECON 499</b>	<b>Research Methods in Economics and Business</b> <b>3.00</b> This course covers the basic steps and process of conducting applied economic and business research. The purpose of this course is to help students learn the basics of how to actively develop and pursue a research agenda with the ultimate goal to create a publishable research paper and present in a research colloquium (and possibly a competitive research conference). The first part of the course will focus on a discussion of how to do economics and business research by formally talking about it and critically reading esearch in the student's chosen discipline. students will take an active role by presenting short research summaries of journal articles and be expected to provide a series of questions to generate class discussion. The first part of this course will also be devoted to applied research is conducted in terms of topic selection, literature review and survey, selection of research method and data acquisition, and appropriate statistical analysis. The last part of this course will be run as a seminar	



- with individual research development as the primary objective. One seminar meeting per week will occur with the remaining time filled with individual student meetings to discuss progress on the research paper. Students will be required to present their final paper at a colloquium open to the academic community at the end of the semester and submit a proposal for presentation at a regional conference. Prerequisite: ECON 222 and junior standing. Offered each semester.
- ECON 500 Prin of Economics (Honors) 2.00**  
This course is an accelerated combination of Economics 211 and Economics 212. Topics covered are national income analysis, money and banking, monetary and fiscal policies, inflation, unemployment, consumer behavior and demand, organization of production, market structures, the pricing of inputs and outputs, and international trade.
- ECON 501 Principles of Macroeconomics 2.00**  
Introduces macroeconomics, national income analysis, money and banking, monetary and fiscal policies, inflation, unemployment, and international finance.
- ECON 502 Principles of Microeconomics 2.00**  
Introduces microeconomics, consumer behavior and demand, organization of production, market structures, the pricing of inputs and outputs, and international trade.
- ECON 503 Economics & Business Statistics (Honors) 2.00**  
This course is 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. This course cannot be used to meet general education requirements.
- ECON 504 Economics & Business Statistics I 2.00**  
Covers descriptive statistics, probability, probability distributions, mathematical expectation, sampling distributions, and confidence intervals. Emphasizes application of these statistical techniques in the areas of business and economics. Prerequisites: College algebra or equivalent.
- ECON 505 Economics & Business Statistics II 2.00**  
Covers hypothesis testing, the analysis of variance, regression and correlation analysis, non-parametric statistics, and time series and index numbers analysis. Emphasizes applications of these techniques in the area of business and economics. Introduces students to the use of a prewritten computer statistical estimation program. Prerequisite: ECON 221 or ECON 504.
- ECON 510 Adv Managerial Econ 1.50**  
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 Econ & Bus Forecasting 3.00**  
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 3.00**  
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 Micro Economics Analysis 3.00**  
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 Macroeconomics 3.00**  
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 615 Graduate Health Economics 3.00**  
This course provides a comprehensive overview of topics related to the workings of health care markets and determinants of health in high-income countries, particularly the United States health care system. The course aims to give students an understanding of the complex interaction between business, government, the economy, science, and medicine. It will advance learning by exploring the policy tradeoffs and economic implications of alternative ways of organizing health insurance and health delivery. Major topics covered will include economic analyses of health care reform, discussion of markets for health professionals and health care providers, international health system comparisons, healthcare delivery models, government insurance prog
- ECON 699 Special Topics 3.00**  
An opportunity for students to investigate specific topics or current issues on the graduate level. Prerequisites depend on the subject to be covered.
- ED 403 Field Exp & Meth Envr Ed 3.00**  
Focuses on methods used to teach environmental knowledge, concepts, and concerns, including the history and research in environmental education. Examines the relationship of all curriculum areas to environmental education. May be taken for graduate credit with the approval of the Education Department chair and the instructor. McKeever Center in Sandy Lake, PA, will be a site for this course. Offered for two weeks at a time during Summer Pre-session.
- ED 414 Literacy Training 3.00**  
Enables student volunteers to teach in literacy programs aimed at adult and secondary school learners in different settings. Integrates basic methods for instruction in vocabulary, comprehensive study skills, and writing with the aim of fostering an appreciation for reading. Open to all university students regardless of major. Prerequisites: 2.50 QPA minimum, sophomore or above standing, and consent of instructor.
- ED 500 Foundations of Distance Learning 3.00**  
This course provides the basic information you need to become a knowledgeable distance education educator. The course will cover theory and research that influences distance learning, the practical skills and knowledge needed to function in a distance learning environment, and will explore management and administrative issues that arise in distance education learning environments. Prerequisite: Admission to MED Program or Ed Certification Program. Offered each fall.
- ED 501 Sem in Critical Ed Issue 3.00**  
This course 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 3.00**  
A study of the current research in the development of a classroom environment which fosters cooperation, communication, affirmation, and problem-solving for children as well as for teachers, staff, instructional teams, parents, support personnel, and other adults. Emphasizes human capabilities for resolving conflicts at various life stages and situations. Examines a range of discipline models as their implementation relates to the classroom environment. (Designed to be taken in

	conjunction with student teaching in the undergraduate program, or as an elective in the master's program.) Elective course in either the undergraduate or graduate program. Prerequisite: ED 121 or 122 for undergraduate credit. Summer session only, on demand.	
<b>ED 505</b>	<b>Tch Content to Eng Lang Learn</b> <b>3.00</b> Introduces participants to background, methods, and strategies needed to effectively teach content to English language learners. Explores importance of native support in achieving academic success and 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	
<b>ED 506</b>	<b>Gender Issues in Ed</b> <b>3.00</b> 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.	
<b>ED 507</b>	<b>Assessment for Online Learning</b> <b>3.00</b> This course will focus on the use of performance-based assessments and summative and formative assessment methods used in online learning environments. The course will include best practices for grading online, plagiarism, evaluation tools, rubrics for online portfolios, and record keeping. Prerequisite: ED 500.	
<b>ED 509</b>	<b>Fld Based Multicul Ed: Obs Urb</b> <b>3.00</b> 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.	
<b>ED 512</b>	<b>Educational Psychology</b> <b>3.00</b> This graduate level education course is designed to explore the art and science of how people learn. Although this is applicable to all ages, ED 512 specifically targets the learning needs of adolescents. Featuring both Middle and Secondary level educational settings, ED 512 seeks to provide the graduate learner with a broader understanding of the developmental characteristics and unique challenges adolescents face. Building upon an understanding of adolescence, ED 512 provides answers to the question: how do adolescents learn best? Demonstrating a highly engaging and relevant pedagogy, ED 512 provides the student with specific strategies to manage adolescent behavior, create classroom cultures conducive to learning, deconstruct lessons	
<b>ED 513</b>	<b>Advanced Techniques for Online Teaching</b> <b>3.00</b> This course builds upon the fundamental concepts and structures of online teaching and learning. This course addresses the advanced teaching and learning applications of a Learning Management System. The course will explore and implement techniques for online instructions such as using a variety of online tools, technologies, and web 2.0 tools, to help instructors transfer knowledge most effectively in the online environment. Prerequisite: ED 500. Offered in Fall and Summer.	
<b>ED 517</b>	<b>Educational Comp Applica</b> <b>3.00</b> This course is designed to provide 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. This course will provide in-service teachers with the knowledge base to make appropriate decisions regarding the use of technology in their respective	
<b>ED 518</b>		classrooms. Not available to students who have taken ED 217 since summer 1994
<b>ED 518</b>	<b>Teaching Secondary Lang Arts</b> <b>3.00</b> Prepares Language Arts candidates in methods appropriate for secondary school teaching. Emphasizes constructivist approaches to teaching, reading, writing, speaking, listening, viewing, and thinking. Incorporates planning, curriculum development, assessment, and evaluation in specifically language arts environments. Includes observations and teaching experiences in schools. Prerequisite: ED 524	
<b>ED 520</b>	<b>Intro to Research</b> <b>3.00</b> 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.	
<b>ED 521</b>	<b>Inst Leadership Skills</b> <b>3.00</b> This course 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.	
<b>ED 522</b>	<b>Analysis of Teaching</b> <b>3.00</b> This course presents an analysis of various teaching models and instructional designs. Videotaped lessons and clinical/field experiences applying course competencies will be critiqued by faculty and peers. Offered fall semester only.	
<b>ED 523</b>	<b>Curr Develop &amp; Eval</b> <b>3.00</b> 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.	
<b>ED 524</b>	<b>Foundations in Education</b> <b>3.00</b> 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, this 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.	
<b>ED 526</b>	<b>Sociology of Ed</b> <b>3.00</b> 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.	
<b>ED 527</b>	<b>Statistics in Ed</b> <b>3.00</b>	
<b>ED 528</b>	<b>Philosophy of Ed</b> <b>3.00</b>	
<b>ED 529</b>	<b>Foundations of Curriculum</b> <b>3.00</b> The course provides a distinct overview of the current and historical curricular evolution with an emphasis on philosophical and sociological foundations, student, school, and community needs, the foundational and present standards movement, and principles of curriculum and curricular issues. Students will explore these areas through an inquiry approach framed with the course's essential questions.	

<b>ED 530</b>	<b>Connect Stand, Inst &amp; Assess</b> Designed to provide 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.	<b>3.00</b>	
<b>ED 531</b>	<b>Tch Sec Social Studies</b> Prepares social studies candidates for teaching diverse learners in a secondary setting through field-based experiences; emphasizes critical pedagogical methods, strategies, and researched-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. Prerequisite: Completion of the five required courses in Post	<b>3.00</b>	
<b>ED 532</b>	<b>Tch Sec Science for Understand</b> 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.	<b>3.00</b>	
<b>ED 533</b>	<b>Recent Developments in Education Social Studies</b> 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.	<b>3.00</b>	
<b>ED 534</b>	<b>Workshop</b> 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.	<b>3.00</b>	
<b>ED 537</b>	<b>Strat-Probs Tch Ele Math</b> This course 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.	<b>3.00</b>	
<b>ED 539</b>	<b>Sec Lang Acq &amp; Mtd Tch Wrld Lg</b> Examination of the physiological 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.	<b>3.00</b>	
<b>ED 540</b>	<b>Prin Of Inst Design &amp; Ed Tech</b> This course 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 will be examined. The appropriateness and production of both projected and non-projected multimedia will be explored in the production of instructional solutions for the targeted audience including the K-12 community and other	<b>3.00</b>	
<b>ED 544</b>	<b>Classroom Assessment for Learning</b> Assessment is an essential part of the learning triangle. Curriculum, instruction, and assessment are core elements in the learning process and are inextricably linked. In this course, students will actively review the basic concepts of data-driven assessment for learning, develop and share assessment strategies that are used to make instructional decisions in support of the standards and student learning in general. The course is designed to support learners as they explore the development of assessment strategies and reporting systems as well as assessment before, during, and after instruction.	<b>3.00</b>	training and development learning environments. Fall, annually.
<b>ED 554</b>	<b>Graduate Certification Practicum</b> A professional practicum that requires the application and integration of instruction, management, and professional knowledge and competencies in a Pre K-12 setting. Certification candidates participate in a teacher practicum in their certification area under the direction of a classroom cooperating mentor teacher and a university supervisor. Prerequisite: Completion of the required courses in the Graduate Level Certification Program with a minimum grade of B, a cumulative 3.0 QPA, and satisfactory standing in admission and retention standards in the college. On demand.	<b>6.00</b>	
<b>ED 558</b>	<b>Internship Seminar</b> 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. Corequisite: ED 554. Each semester.	<b>3.00</b>	
<b>ED 559</b>	<b>Special Topics</b>	<b>3.00</b>	
<b>ED 563</b>	<b>Reading Pedagogy</b> Students will 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.	<b>3.00</b>	
<b>ED 564</b>	<b>Evidenced-Based Literacy Inst</b> Students will review the major national studies in literacy since the 1960's and investigate current research on various literacy topics for the purpose of developing a model of best practice based on inquiry and reflection. Fall, annually.	<b>3.00</b>	
<b>ED 565</b>	<b>Read &amp; Lang Arts in Ech</b> 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.	<b>3.00</b>	
<b>ED 567</b>	<b>Secondary, College and Content Area Reading Instruction</b> 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.	<b>3.00</b>	
<b>ED 568</b>	<b>Language and Literacy</b> This course is 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.	<b>3.00</b>	
<b>ED 569</b>	<b>Assessment of Literacy</b> 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	<b>3.00</b>	

	approaches for the purpose of planning instruction. Introduction to literacy profile. Prerequisites: Two graduate level literacy courses. Spring, annually.	
<b>ED 570</b>	<b>Practicum I: Assessment</b> <b>3.00</b> Emphasizes the development of competency in the assessment process of addressing reading difficulties. Includes (1) selection of appropriate diagnostic, formative, and summative assessments, (2) developing facility in using the assessment and standards resources of the Pennsylvania Standards-Aligned System, (3) administering appropriate and purposeful assessments, (4) developing a sensitive interpretation of assessment results, and (5) reporting data, interpretations, and recommendations to stakeholders in a comprehensive, professional manner. Prerequisite: ED 569 and permission of the instructor. Course must be taken concurrently with ED 571. Summer, annually.	
<b>ED 571</b>	<b>Practicum II: Instruction</b> <b>3.00</b> Emphasizes the development of competency in the instructional process of addressing reading difficulties. Includes (1) planning standards-based, assessment-informed instructional opportunities using the Pennsylvania Standards Aligned System resources, (2) employing techniques for effective, evidence-based instruction, (3) implementing effective teaching of individual strategies which will enable learners to develop as readers, (4) developing expertise in using materials related to the immediate needs of individuals, and (5) preparing a literacy profile which suggests to stakeholders procedures and resources to enhance a student's literacy development. Prerequisites: ED 569 and permission of the instructor. Course must be taken concurrently.	
<b>ED 574</b>	<b>Lit Lead Colb Cch Coll Pro Dev</b> <b>3.00</b> 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 literacy coaches in the 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.	
<b>ED 575</b>	<b>Sem in Children's Lit</b> <b>3.00</b> 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.	
<b>ED 576</b>	<b>Adv Sem in Reading &amp; Lit</b> <b>3.00</b> The study and evaluation of research and current reports on reading education issues. Prerequisite: ED 560.	
<b>ED 578</b>	<b>Professional Seminar</b> <b>3.00</b> Intended to be the capstone course for all graduate students in the MED program. Provides students with an opportunity to focus on an educationally relevant action research project as an integrating element for knowledge and experiences acquired during their graduate programs. Recognizes the validity of classroom-based inquiry and research as the basis for enhancing teaching and learning. Develops proficiency in using inquiry and reflection strategies to assist students in making instructional decisions and process changes. Affords students the opportunity to share effective classroom practices and requires study and practice in interpreting and analyzing pertinent research to promote professional growth. Encourages students to view themselves as researchers of teaching and learning as professionals whose continued growth can best be met through inquiry, reflection, and sustained dialogue with peers. Prerequisite: ED 520 or an equivalent course and a prospectus.	
<b>ED 599</b>	<b>Special Topics</b> <b>3.00</b> Examines current topics and issues in education. Topics, announced in advance, focus on the needs and interests of educators.	
<b>ED 600</b>	<b>Research</b> <b>6.00</b>	
<b>ED 610</b>	<b>Mobile Educational Technology</b> <b>3.00</b> A web-based course that introduces K-12 Professionals and/or Masters of Education Degree candidates to the potentials of mobile devices and applications, and assist them in using these multi-faceted resources as effective teaching and professional development tools. Participants will be introduced to mobile educational technology related to communications, productivity, learning, presentations and integration. Within this framework, participants will create their own personal learning networks, mobile technology resources, online presentations and design instructional lessons appropriate to their discipline demonstrating the integration of mobile educational technology throughout the K-12 setting.	
<b>ED 617</b>	<b>Adv Educational Tech</b> <b>3.00</b> 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; 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.	
<b>ED 620</b>	<b>Internet Applic K-12 Edu</b> <b>3.00</b> Introduces K-12 Educators and/or Technology Specialist Certificate candidates to the potentials of the Internet and assist them in using this multi-faceted resource as an effective teaching tool within the classroom. Participants will be 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 this framework, participants will create their own web pages, design on-line instructional lessons appropriate to their discipline, and demonstrate the integration of Internet/Technology information throughout the K-12 curriculum. Prerequisite: None. Annually.	
<b>ED 649</b>	<b>Ed Tech Leadership</b> <b>3.00</b> Involves a survey or various theories, models, and styles of leadership, followed by the application of leadership skills in teacher-pupil, teacher-colleague, 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.	
<b>ED 701</b>	<b>Master's Thesis</b> <b>3.00</b> 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.	
<b>ED 712</b>	<b>Curr Design &amp; Dev</b> <b>3.00</b>	
<b>ED 735</b>	<b>Internship in Education</b> <b>3.00</b> Provides an advanced professional experience in an educational setting where the student can gain hands-on experience working with practitioners under the guidance of certified education specialists in a school, district, or intermediate unit. Students will be able to apply the theories, knowledge, and skills in their coursework to an actual work environment. Students work with their advisor and graduate coordinator to locate an internship placement that best meets their needs. Prerequisite(s): 18 credits of successfully completed coursework including ED 520; permission of the instructor and field supervisor.	



<b>EDAD 711</b>	<b>Found, Sch Reform &amp; Align Curr</b> <span style="float: right;"><b>1.00</b></span> This course is designed to provide the principal candidate with an examination of the curricular issues facing school administrators. Topics covered include but are not limited to: curriculum theory and practice, school reform/standards movement, curriculum mapping and assessment, and the curriculum adoption process. Prerequisite: Successful completion of Theme 1.	<b>ENG 457</b>	<b>Intro to Linguistics</b> <span style="float: right;"><b>3.00</b></span> Presents key concepts and basic analytical procedures common to many contemporary linguistics theories. Covers phonetics and phonology, morphology, and syntax in detail. Analyzes the integration of these sub-systems in the overall design of a generative grammar. Prerequisite: ANTH/ENG 262. Fall, annually.
<b>EDAD 714</b>	<b>School Finance</b> <span style="float: right;"><b>1.00</b></span> This is the second course in Theme III (School Management) of the principal certification program. Candidates will obtain theoretical and practical information about the basic principles of school finance, accounting procedures, and school business management. Prerequisite: Successful completion of Theme II.	<b>ENG 458</b>	<b>Hist-Eng Lang</b> <span style="float: right;"><b>3.00</b></span> Studies the history of the language, including its origins and changes in structure, usage, pronunciation, spelling, vocabulary, and meaning. Intensive readings in Old and Middle English. Spring, even-numbered years.
<b>EDAD 717</b>	<b>Practicum In School Admin I</b> <span style="float: right;"><b>1.00</b></span> This course provides the candidate an authentic experience during the first semester of the principal certification program. It will begin on the first day of the semester and continue until the last day of the semester unless extended by the candidate, the university mentor, or the field mentor. Candidate will focus on areas of educational administration via their experience in the administrative assessment center. Prerequisite: Enrollment in Themes I through IV.	<b>ENG 459</b>	<b>Lang Across Cult: Mat &amp; Assess</b> <span style="float: right;"><b>3.00</b></span> Introduces current research in first and second language acquisition with emphasis on the preparation of classroom teachers and other professionals to work with children/adults coming from a background where languages other than English are spoken. Prerequisite: ENG 262 recommended but not required. Spring, odd-numbered years.
<b>EDAD 720</b>	<b>The Law And Special Education</b> <span style="float: right;"><b>1.00</b></span> This is the first course within the fifth theme of the principal certification program. (The first theme in semester 2.) This course is designed to provide the candidate with an examination of the legal issues and challenges of the special education program facing school administrators today. Prerequisite: All first semester requirements. (Themes I thru IV)	<b>ENG 482</b>	<b>Cont Pract Teach Writ</b> <span style="float: right;"><b>3.00</b></span> Provides a systematic study of theory and practice in the teaching of composition, conducted through workshop methods. Requires extensive writing and a major written project. Prerequisites: secondary education majors in English must have completed ENG 111, 200, or 301 and have taken or be taking their methods course; others by permission of the instructor. Fall, annually.
<b>EDAD 721</b>	<b>Spec Ed Prog Admin &amp; Eval</b> <span style="float: right;"><b>1.00</b></span> This is the second course in Theme V (Special Education) of the principal certification program. It is designed to provide the candidate with an examination of the administration and evaluation of the special education program including an overview of the special education audit process. Prerequisite: All semester one courses and requirements.	<b>ENG 501</b>	<b>Intro to English Studies</b> <span style="float: right;"><b>3.00</b></span> An introduction to the strategies of graduate and professional discourse in English studies. The course also includes an introduction to bibliographic and library resources in the field. Should be taken at or near the beginning of graduate study. Fall, annually.
<b>EDAD 722</b>	<b>Personnel Select &amp; Supervision</b> <span style="float: right;"><b>1.00</b></span> This is the first course in Theme VI (Human Resource Management) in the principal certification program. It is designed to provide the candidates with an introduction to personnel selection, supervision, and evaluation. Prerequisite: Successful completion of Theme V.	<b>ENG 509</b>	<b>Seminar In Lit Theory</b> <span style="float: right;"><b>3.00</b></span> A seminar on general and/or selected theoretical issues implicit in the reading of literary texts. Depending upon the instructor, the course may cover broad matters of interpretation (authorial intention, the reader's share, intertextuality), focus on more specific theories of reading (reader-response, phenomenology, post-structuralism), or consider the conceptual foundations of certain literary structures (narrative, genre, tropes).
<b>EDAD 725</b>	<b>Oral &amp; Writ Comm For Sch Admin</b> <span style="float: right;"><b>1.00</b></span> This is the first course in Theme VII (Community Relations) of the principal certification program. It is designed to provide the candidate with an examination of the issues related to working with the general public and various stakeholders within the school community. Prerequisite: Successful completion of Theme VI.	<b>ENG 510</b>	<b>Seminar In English Lit</b> <span style="float: right;"><b>3.00</b></span> This course provides students with critical strategies to apply to specific periods, figures, or problems in English literature. This course may be taken more than once if the course content is different.
<b>EDAD 726</b>	<b>Dev Pos Relations w/ Stakehold</b> <span style="float: right;"><b>1.00</b></span> This is the second course in Theme VII (Community Relations) in the principal certification program. It is designed to provide the candidate with an examination of issues related to working with the public facing school administrators. Prerequisite: Successful completion of Theme VI.	<b>ENG 511</b>	<b>Seminar In American Lit</b> <span style="float: right;"><b>3.00</b></span> This course provides students with critical strategies to apply to specific periods, figures, or problems in American literature. This course may be taken more than once if the course content is different.
<b>ENG 401</b>	<b>Chaucer</b> <span style="float: right;"><b>3.00</b></span> Studies in Middle English of Chaucer's early poems, Troilus and Criseyde, and the Canterbury Tales. Spring, even-numbered years.	<b>ENG 512</b>	<b>Seminar In Lit Studies</b> <span style="float: right;"><b>3.00</b></span> This seminar encompasses topics that combine English, American, and other literatures in a critical discourse. Topics may include ethnic, non-canonical, and comparative literature. Studies in the novel, drama, and the satire may be subjects of this seminar. This course may be taken more than once if the course content is different.
<b>ENG 412</b>	<b>Shakespeare: Comedies &amp; Histories</b> <span style="float: right;"><b>3.00</b></span> Provides study and discussion of problems of style, characterization, and motivation in Shakespeare's maturing and experimental comedies and his history plays. Also examines how the plays reflect and challenge the cultural attitudes of Shakespeare's time. Fall, annually.	<b>ENG 515</b>	<b>Seminar In Film Lang</b> <span style="float: right;"><b>3.00</b></span> Film language views movies as a discourse medium, using a variety of formal structures: montage, mise-en-scene, and narrative and non-narrative patterns. These grammatical and rhetorical elements will be studied as they structure representative movie texts. Specific theories of film will also be reviewed.
<b>ENG 413</b>	<b>Shakespeare: Tragedies &amp; Romances</b> <span style="float: right;"><b>3.00</b></span> Provides study and discussion of problems of style, characterization, and motivation in Shakespeare's tragedies and romances. Also examines the production practices of Shakespeare's time and contemporary production approaches. Spring, annually.	<b>ENG 520</b>	<b>Sem In Writ: Theory &amp; Res</b> <span style="float: right;"><b>3.00</b></span> Seminar in Writing explores important movements in rhetorical theory and recent trends in research as conceptually applied to writing, education, and related fields. Students study major theories about the nature of writing and scientific inquiry into it.
		<b>ENG 521</b>	<b>Seminar In Comp Studies</b> <span style="float: right;"><b>3.00</b></span> Seminar in Composition Studies, which builds on the classroom practices presented in ENG 520, examines recent issues and innovations in writing with emphasis on the subspecialties of writing. Topics may include:

	the composing process, computers in composition, evaluation, writing across the curriculum, or critical thinking and writing.	
<b>ENG 522</b>	<b>Pract In Coll Teaching</b> This course introduces prospective composition instructors to the principles and practices of teaching at the college or university levels and provides a forum for discussing those ideas. Students will observe composition classes, draft syllabi, and develop, sequence, and test writing assignments. Emphasis is placed on diagnosing writing weaknesses, responding to writing, and evaluating it.	<b>3.00</b>
<b>ENG 523</b>	<b>Internship In Writing</b> Interns receive tutorial, promotional, educational, organizational, or technical writing experience in university or other professional settings. This course provides for writing and editing tasks appropriate to the unit or organization. Some administrative and research work may be involved. (No more than 6 credits may be taken from ENG 523 and ENG 522 combined.)	<b>3.00</b>
<b>ENG 530</b>	<b>Seminar In Linguistics</b> A study of the philosophical basis of present day generative-transformational theory and its relationship to language acquisition and semantics.	<b>3.00</b>
<b>ENG 531</b>	<b>Sem Hist of Eng Lang</b> Advanced study in historical linguistics. The development of the English language is reviewed toward supporting study and analysis of original historical texts in the English language. Students may elect a general approach or focus on a specific historical period.	<b>3.00</b>
<b>ENG 534</b>	<b>Workshops In English</b>	<b>6.00</b>
<b>ENG 540</b>	<b>Independent Study</b>	<b>3.00</b>
<b>ENG 562</b>	<b>Meth Teach Eng Non-Nat Speak</b> Overview of the current trends in Teaching English as a Second Language Methodology. Explores techniques that may be used to teach students who are part of the regular classroom but who need to develop skills in language to be able to succeed. Techniques involving speaking, reading, writing, and listening activities are discussed, along with interactive exercises utilizing the culturally diverse language styles found in a regular classroom. Students utilize the comprehensible input of native-speaking members of the class and improve upon their own interaction style. Major approaches and methods in language teaching such as grammar translation, audiolingualism, communicative language teaching, and the natural approach are discussed, along with	<b>3.00</b>
<b>ENG 563</b>	<b>Second Language Acquisition</b> Provides an overview of the current state-of-the-art in Second Language Acquisition studies and explores the linguistic, psycholinguistic, and sociolinguistic factors in learning a second language. Every three semesters.	<b>3.00</b>
<b>ENG 601</b>	<b>Thesis and Research</b> This course provides Master's candidates in English with the opportunity to conduct research or literature review for the purposes of writing the Master's Thesis and/or preparing for the Qualifying Examination. Thesis and Examination track students only. Prerequisite: Advancement to Candidacy, pursuant to the approval of an acceptable research proposal.	<b>6.00</b>
<b>ENG 602</b>	<b>Teacher Research Portfolio</b> Master's in Education candidates will propose a classroom-based research project, conduct the project, and assemble their findings into a portfolio. Prerequisite: Advancement to candidacy, pursuant to the approval of an acceptable research proposal.	<b>3.00</b>
<b>ENVR 475</b>	<b>Field Nat History</b> Explores competencies in biology, meteorology, geology, and astronomy. Emphasizes developing competencies which will be valuable in teaching environmental (outdoor and conservation) education. For non-science majors. Prerequisite: Upper-division standing. Spring, annually.	<b>3.00</b>
<b>ENVR 500</b>	<b>Graduate Sem In Environ Sci</b> A survey of current literature, concepts, theory, and applications from selected fields of environmental	<b>2.00</b>
<b>ENVR 501</b>	<b>Environ Sci Internship</b> 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.	<b>3.00</b>
<b>ENVR 600</b>	<b>Spec Problems In Environ Sci</b> 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.	<b>3.00</b>
<b>ENVR 700</b>	<b>Research &amp; Thesis Environ Sci</b> 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.	<b>6.00</b>
<b>ES 425</b>	<b>Adv Remote Sensing w/Lab</b> Examines satellite-based earth imaging instruments, data sources, and products, and their applications to land use management, geologic assessments, agriculture, forestry, soil resources, archeology, meteorology, and oceanography. Utilizes visual and digital data. Prerequisite: GEOG 400 (can be waived by permission of instructor). Every Spring.	<b>3.00</b>
<b>ES 460</b>	<b>Geospatial Data Handling &amp; Integration</b> This course concentrates on how geographic data can be compiled from different sources into a GIS project. This includes geo-referencing scanned paper maps, translating the real-world into a geographic database, digitization of vector features, editing attribute data, working with and integrating GIS data available from different online sources, and manipulating metadata.	<b>3.00</b>
<b>ES 470</b>	<b>Intro Geog Info Systems</b> Addresses basic concepts and principles of geographic information systems, data models, data structures, applications, and technical issues. Lab focuses on how these basic principles are implemented in a GIS. These include an entire sequence of building spatial database: data capturing, editing, adding attributes, building topography, registering layers to real-world coordinates, making map compositions, data conversion, and basic analysis. Prerequisite: GEOG/ES 345 (can be waived by instructor). Fall, annually.	<b>4.00</b>
<b>ES 481</b>	<b>Spatial Analysis &amp; Modeling</b> This course builds upon previous knowledge of GIS vector and raster data model handling. It concentrates on the use of those spatial data in analyzing different environmental phenomenon. It emphasizes how to derive new information from existing data, and handling them through interpolation methods and raster calculations. It will also involve the extraction of new knowledge in support of a decision making process through cell-based operations in an automated fashion using scripting and modeling techniques.	<b>4.00</b>
<b>ES 490</b>	<b>Adv Geog Info Sys w/Lab</b> Provides students with the ability to apply GIS for spatial problem solving in applied settings. Lecture and application-/project-based. Lecture covers spatial modeling and analysis based on a raster data structure. Laboratory sessions introduce students to three-dimensional surface modeling, cost-distance analysis, runoff modeling, and diffusion analysis. Prerequisite: GEOG/ES 470. Each Spring Semester.	<b>3.00</b>
<b>ES 500</b>	<b>Intro Arphoto Int Rem Sens</b> Study and assessment of the physical and cultural features of the earth using satellite images and aerial photographs. Uses black and white photos, color infrared photos, and digital satellite images for planimetric map construction, agricultural and vegetation studies, landform identification, land use assessment, and forestry. Laboratory activities	<b>3.00</b>

	include analysis of imagery in different zones of the electromagnetic spectrum, geometric correction of satellite images, and computer-assisted land cover classification. Prerequisite: GEOG 125 or permission of instructor. Fall semester.	
<b>ES 525</b>	<b>Adv Remote Sensing w/Lab</b> <b>3.00</b> Builds on the content of Introduction to Air Photo Interpretation and Remote Sensing. Uses Earth imaging satellites, such as Lansat, SPOT, and Ikonos, and introduces new instruments, including Radarsat, Space Shuttle, and Space Station earth imagine instruments. Examines various digital data sets including digital elevation models (DEMS), digital orthophotos and digital topographic maps. Students will work together on a drainage basin study to assess the sources of acid pollution using computer-assisted land cover classification, manual photo interpretation, and field reconnaissance to identify trip mine areas and acid discharging oil/gas wells. Prerequisite: GEOG/ES 500. Spring, annually.	
<b>ES 550</b>	<b>Field Geography w/Lab</b> <b>3.00</b> 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.	
<b>ES 555</b>	<b>Field Meth Environ Geos</b> <b>4.00</b> 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.	
<b>ES 560</b>	<b>Geospatial Data Handling &amp; Integration</b> <b>3.00</b> This course concentrates on how geographic data can be compiled from different sources into a GIS project. This includes geo-referencing scanned paper maps, translating the real-world into a geographic database, digitization of vector features, editing attribute data, working with and integrating GIS data available from different online sources, and manipulating metadata.	
<b>ES 570</b>	<b>Intro Geog Info Systems</b> <b>4.00</b> 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.	
<b>ES 581</b>	<b>Spatial Analysis &amp; Modeling</b> <b>4.00</b> This course builds upon previous knowledge of GIS vector and raster data model handling. It concentrates on the use of those spatial data in analyzing different environmental phenomenon. It emphasizes how to derive new information from existing data, and handling them through interpolation methods and raster calculations. It will also involve the extraction of new knowledge in support of a decision making process through cell-based operations in an automated fashion using scripting and modeling techniques.	
<b>ES 590</b>	<b>Adv Geog Info Sys w/Lab</b> <b>3.00</b> 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.	
<b>FIN 463</b>	<b>Tax Planning</b> <b>3.00</b> Acquaints students with tax planning techniques that can be used to accomplish an individual's financial goals. Enables students to suggest actions that	
<b>FIN 471</b>	<b>Financial Problems</b> <b>3.00</b> Capstone course challenges students to integrate and synthesize, through case methods, their knowledge in finance. Emphasizes corporate finance in application of theoretical underpinning, but some cases also will deal with investments, financial institutions, and markets. Prerequisite: FIN 371.	
<b>FIN 474</b>	<b>Personal Financial Planning</b> <b>3.00</b> Capstone course requires that students apply through case studies, written reports, and presentations each of the major segments of personal financial planning including the financial planning process, ethical and professional considerations of financial planning, insurance policies and strategies, risk management, investment vehicles, tax planning strategies, retirement plans and employee benefits, and estate planning. Students are encouraged to complete the other courses within the Personal Financial Planning major prior to or contemporaneous with completion of this course. Prerequisite: FIN 370. Spring, annually.	
<b>FIN 476</b>	<b>Portfolio Theory &amp; Mgmt</b> <b>3.00</b> Examines modern portfolio theory and its application to investment strategies; study of options and future markets; investigation of market efficiency. Prerequisite: FIN 376. Annually	
<b>FIN 480</b>	<b>Multinational Finance</b> <b>3.00</b> Examines the theory and practice of financial management in the multinational firms. Focuses on important differences between domestic and international financial decision-making. Prerequisite: FIN 370.	
<b>FIN 500</b>	<b>Financial Management</b> <b>2.00</b> 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.	
<b>FIN 570</b>	<b>Managerial Finance</b> <b>3.00</b> A study of financial management approaches to evaluating complex alternatives for using available resources in both a domestic and a multinational context. Prerequisites: ACTG 252, FIN 370.	
<b>FIN 572</b>	<b>Healthcare Finance</b> <b>3.00</b> This course focuses on the analysis of financial decisions in the healthcare industry. Financial methods incorporated within this course include: identification of cost of capital, net present value of free cash flows, real options, and comparative analysis. Case studies will introduce the student to multiple methods valuation, option pricing, means of financing, data analysis, as well as market analysis of hospitals, biotechnology, insurance and related industries. Prerequisite: FIN 570. Offered annually.	
<b>FIN 576</b>	<b>Risk Management and Derivatives</b> <b>3.00</b> This course will provide students with a practical understanding of risk management, and the methods and instruments used. In particular students will learn to manage risk using derivative securities such as futures, forwards, options, and swaps. Students will also learn the structure of various derivative markets.	
<b>FIN 580</b>	<b>International Financial Management</b> <b>3.00</b> This course will provide students with the ability to conduct corporate financing and capital budgeting operations in an international setting. Students will learn about the financing options available to multinational corporations around the world, and how to choose between these options. Students will also learn to incorporate foreign currency, and other types of risk found in an international setting, into a capital budgeting analysis. Lastly, students will learn to hedge many of these unique risks. Offered as needed.	
<b>FIN 671</b>	<b>Fin Theory &amp; Pract</b> <b>3.00</b> 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 Mgmt 3.00**  
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.
- FR 501 Spec Topics French Lit & Cult 3.00**  
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 Adv Supr Readings In Fren Lit 3.00**  
Selected readings determined by the needs and interests of the individual student.
- FR 557 Adv Fren Ling & Cult Immersion 3.00**  
This course consists of two weeks of intensive online instruction on French culture and civilization, prior to a two week trip to France. During this immersion period, students will visit places of historical and cultural interest in the country, receive lectures on the historical, cultural, artistic and literary importance of the sites visited, and conduct as much of their daily routines in French as possible. Courses offered to graduate students.
- GEOG 400 Intro Remote Sensing/Lab 3.00**  
Explores aerial photographs for geographic investigation of physical and cultural features of the landscape; the application of remote sensing to topographic and planimetric map construction, agricultural and land use identification, landform study, and forestry. Each Fall Semester.
- GEOG 413 Spatial Data Visualization and Map Design 4.00**  
This online course was developed as one of four online courses for the post baccalaureate Geographic Information Systems Certificate. This class introduces the concepts and principles of map design from planning to composition. Color theories and text material and typography will be discussed at length in this class. Also, issues pertaining to scale and generalization are presented. Concepts and applications of map projections will be employed to create successful map compositions, Symbol use for points, lines and polygons in single and multivariate mapping are implemented. Students in this class will be using spatial and non-spatial data to compile various traditional and non-traditional maps and cartograms while receiving and providing ed
- GEOG 414 Analysis, Modeling and Problem Solving 5.00**  
This online course was developed as one of four online courses for the post baccalaureate Geographic Information Systems Certificate. This class encompasses the basic data-driven of exploratory GIS and provides a basis for model-driven analysis for hypothesis testing and prediction. Approaches of handling geographical problems and scenarios will be discussed, this include the planning of the analysis procedures from data collection, adjustments and refinements, to the determination of the most suitable methods for analysis. Object-based (vector) as well as advanced techniques in cell-based (raster) analysis are discussed and the identification of when and how each should be used is presented. Modeling the analysis phases for automation and
- GEOG 425 Adv Remote Sensing w/Lab 3.00**  
Examines satellite-based earth imaging instruments, data sources, and products, and their applications to land use management, geologic assessments, agriculture, forestry, soil resources, archeology, meteorology, and oceanography. Utilizes visual and digital data. Prerequisite: GEOG 400 (can be waived by permission of instructor). Every Spring.
- GEOG 460 Geospatial Data Handling & Integration 3.00**  
This course concentrates on how geographic data can be compiled from different sources into a GIS project. This includes geo-referencing scanned paper maps, translating the real-world into a geographic database, digitization of vector features, editing attribute data, working with and integrating GIS data available from different online sources, and manipulating metadata.
- GEOG 470 Intro Geog Info Systems 4.00**  
Addresses basic concepts and principles of geographic information systems, data models, data structures, applications, and technical issues. Lab focuses on how these basic principles are implemented in a GIS. These include an entire sequence of building spatial database: data capturing, editing, adding attributes, building topography, registering layers to real-world coordinates, making map compositions, data conversion, and basic analysis. Prerequisite: GEOG/ES 345 (can be waived by instructor). Fall, annually.
- GEOG 481 Spatial Analysis & Modeling 4.00**  
This course builds upon previous knowledge of GIS vector and raster data model handling. It concentrates on the use of those spatial data in analyzing different environmental phenomenon. It emphasizes how to derive new information from existing data, and handling them through interpolation methods and raster calculations. It will also involve the extraction of new knowledge in support of a decision making process through cell-based operations in an automated fashion using scripting and modeling techniques.
- GEOG 490 Adv Geog Info Sys w/Lab 3.00**  
Provides students with the ability to apply GIS for spatial problem solving in applied settings. Lecture and application-/project-based. Lecture covers spatial modeling and analysis based on a raster data structure. Laboratory sessions introduce students to three-dimensional surface modeling, cost-distance analysis, runoff modeling, and diffusion analysis. Prerequisite: GEOG/ES 470. Each Spring Semester.
- GEOG 500 Intro Arphoto Int Rem Sens 3.00**  
Study and assessment of the physical and cultural features of the earth using satellite images and aerial photographs. Uses black and white photos, color infrared photos, and digital satellite images for planimetric map construction, agricultural and vegetation studies, landform identification, land use assessment, and forestry. Laboratory activities include analysis of imagery in different zones of the electromagnetic spectrum, geometric correction of satellite images, and computer-assisted land cover classification. Prerequisite: GEOG 125 or permission of instructor. Fall semester.
- GEOG 525 Adv Remote Sensing w/Lab 3.00**  
Builds on the content of Introduction to Air Photo Interpretation and Remote Sensing. Uses Earth imaging satellites, such as Lansat, SPOT, and Ikonos, and introduces new instruments, including Radarsat, Space Shuttle, and Space Station earth imagine instruments. Examines various digital data sets including digital elevation models (DEMS), digital orthophotos and digital topographic maps. Students will work together on a drainage basin study to assess the sources of acid pollution using computer-assisted land cover classification, manual photo interpretation, and field reconnaissance to identify trip mine areas and acid discharging oil/gas wells. Prerequisite: GEOG/ES 500. Spring, annually.
- GEOG 550 Field Geography w/Lab 3.00**  
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.
- GEOG 560 Geospatial Data Handling & Integration 3.00**  
This course concentrates on how geographic data can be compiled from different sources into a GIS project. This includes geo-referencing scanned paper maps, translating the real-world into a geographic database, digitization of vector features, editing attribute data, working with and integrating GIS data available from different online sources, and manipulating metadata.
- GEOG 570 Intro Geog Info Systems 4.00**  
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 581 Spatial Analysis & Modeling 4.00**  
This course builds upon previous knowledge of GIS vector and raster data model handling. It concentrates on the use of those spatial data in analyzing different environmental phenomenon. It emphasizes how to derive new information from existing data, and handling them through interpolation methods and raster calculations. It will also involve the extraction of new knowledge in support of a decision making process through cell-based operations in an automated fashion using scripting and modeling techniques.
- GEOG 590 Adv Geog Info Sys w/Lab 3.00**  
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.
- GER 501 Spec Topics German Lit & Cult 3.00**  
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 Adv Supr Readings In Germ Lit 3.00**  
Selected readings determined by the needs and interests of the individual student.
- GER 557 Adv Germ Ling & Cult Immersion 3.00**  
This course consists of two weeks of intensive online instruction on German culture and civilization, prior to a two week trip to a German-speaking country. During this immersion period, students will visit places of historical, 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.
- HIST 460 Hist of Religion in the U.S. 3.00**  
A study of American religious history from the colonial period to the present. Examines the histories of individual religious institutions and their interaction within their social and intellectual context, focusing upon the paradox of mainstream American Protestantism within a pluralistic religious culture. Prerequisite: HIST 120 or permission of instructor. On demand.
- HIST 511 Sem In Anc & Medieval Europe 3.00**  
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 3.00**  
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 3.00**  
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. Hist to 1877 3.00**  
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 Sem In U.S. History Since 1877 3.00**  
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 3.00**  
Survey of major historical problems in the 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 532 Vietnam War 3.00**  
This course examines U.S. involvement in Vietnam from 1945 to the present, with a primary focus on the Vietnam War and its political, economic, social, and cultural impact upon American society. Topics covered include the roots of Vietnamese revolutionary thought, the rise of Ho Chi Minh and communism in Vietnam, the French-Indochina War, U.S. military engagements from 1965 through 1973, the political and cultural antiwar movement in America, the peace accords, and the aftermath of the conflict, among others. Prerequisite: Graduate student standing or permission of instructor
- HIST 562 The Holocaust 3.00**  
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 6.00**  
Independent research project on an approved topic supervised by a faculty member. Prerequisite: permission of instructor. On demand.
- LEGL 540 Legal & Ethical Environment of Business Graduate 3.00**  
This course is design to provide 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. Prerequisite: Graduate standing.
- LEGL 541 Legal and Ethical Environment of Business 1.50**  
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. Prerequisite: LEGL 500 Legal Environment of Business. Offered fall annually.
- LS 500 Info Sources & Services 3.00**  
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 Develop Lib Collections 3.00**  
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.

<b>LS 502</b>	<b>Cataloging and Classification</b> Introduction to the principles and techniques of organizing information with special reference to contemporary library practice. Students are introduced to descriptive cataloging using currently accepted national 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.	<b>3.00</b>	<b>LS 541</b>	<b>Database Management for Library Professionals</b> The course will provide library professionals the basic tools to understand database design and management as used in various integrated library systems and electronic resources. The course is designed to familiarize future and current library professionals with the logic and structure of fields, records and databases.	<b>3.00</b>
<b>LS 504</b>	<b>Intro to the Information Professions</b> 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. Accreditation assessment administered.	<b>3.00</b>	<b>LS 542</b>	<b>Information Seeking Behavior in User Interface Design</b> This course overviews theoretical and practical frameworks for a user centered approach to information service. The course concentrates on user interface design for information retrieval systems based on an understanding of human information seeking behavior. This course will cover (1) theoretical foundations of various information behaviors and (2) practical analysis using user interface design principles, task and user analysis, user interface evaluation, and usability testing.	<b>3.00</b>
<b>LS 505</b>	<b>Organization of Information</b> Introduction to the theories, practices, standards, and tools used in the organization across a variety of information environments. Students are introduced to topics of information structures and their retrieval systems, the MARC record and other metadata standards and description, subject analysis, vocabularies, and systems for categorization.	<b>3.00</b>	<b>LS 543</b>	<b>Adult Programming for Public Libraries</b> An introduction to the literature, history, principles, strategies and competencies of providing library service to adults as individuals and in groups; such as: readers of genre fiction; the independent learner; to populations of diverse cultural and ethnic backgrounds; older adults; educationally disadvantaged or less literate; occupational (business, labor, etc.); institutionalized, etc. Examines the research based knowledge of adulthood and adult learning, the assessment of a community, elements of program planning, the diverse advisory roles of librarians and their implications for the organization of informational, educational, and cultural programs and activities. Pre-req LS 500	<b>3.00</b>
<b>LS 529</b>	<b>Inst Strat Libr &amp; Info Prof</b> 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.	<b>3.00</b>	<b>LS 545</b>	<b>Reference Services for Genealogy &amp; Local History Collections</b> Course introduces students to specialized reference resources for genealogy and local history. Students will assess the value and use of specific published documents and primary sources held in library collections. Major online resources will be examined and compared. Students will create sample policies and procedures to deliver effective local history and genealogy reference services within specific library settings. Prerequisite: LS 500.	<b>3.00</b>
<b>LS 532</b>	<b>Mgmt of Sch Libr Media Centers</b> 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.	<b>3.00</b>	<b>LS 546</b>	<b>Virtual Information Services</b> This course provides an overview of the design and delivery of library services and library instruction to students and patrons at a distance. The course covers the methods and technologies used to deliver distance education and focuses on how the library can be integrated into the delivery of courses offered in a variety of formats: services for remote users of other types of libraries are also considered. Pre-req. LS 500	<b>3.00</b>
<b>LS 534</b>	<b>Admin &amp; Mgmt of Libraries</b> 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: prerequisite or corequisite LS 504. Fall, Spring, Summer II.	<b>3.00</b>	<b>LS 547</b>	<b>Leadership for Libraries and Information Centers</b> Designed for students preparing to assume the role and duties of a leader, supervisor, and/or director in the field of librarianship; Explores the research and models of leadership relevant to defining and achieving goals in the library and information center setting; Connects the role of management with the skills required for effective leadership; and includes the examination of theory and practical application of organizational leadership.	<b>3.00</b>
<b>LS 535</b>	<b>Archival Management for Small Repositories</b> Introduction to the principles of archival theory as practiced in small repositories, including libraries and local historical societies. Appraisal, arrangement and description, and interpretation of materials are covered. Includes a field experience.	<b>3.00</b>	<b>LS 548</b>	<b>Fiscal Management for Libraries and Information Agencies</b> Introduction to fiscal management as a strategic planning process resulting in the selection of accounting systems and the development and control of budgets. Emphasis is on the creation of a financial plan based on an assessment of fiscal status, an environmental scan, market survey, and the selection and implementation of a budget format. Special attention is given to capturing alternate sources of funding, preparation of grant proposals and determination of appropriate investment strategies. Prerequisite: LS 534. Offered once per year.	<b>3.00</b>
<b>LS 536</b>	<b>Local Special Collection Representation</b> Course introduces students to detailed representation of special and local collections in library settings. Students will examine competing methods for representing such collections, including MARC, EAD, archival software, and local controlled vocabularies. Students will produce a sample finding aid or other representation. Pre-requisite: LS 535. Offered annually.	<b>3.00</b>	<b>LS 549</b>	<b>Genre Fiction and Readers' Advisory</b> Course introduces students to the readers' advisory	<b>3.00</b>
<b>LS 540</b>	<b>Multic Src &amp; Serv Ed &amp; Libr</b> 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.	<b>3.00</b>			

- process as a means of assisting library users in identifying appropriate reading materials to meet recreational reading needs. Major genres of fiction (e.g., romance, mystery, adventure, etc.) are examined. Bibliographic tools to support the reader's advisory process are identified and examined.
- LS 550 Research Methodologies in Library Science 3.00**  
In depth study of quantitative and qualitative research methodologies as they apply to library science; emphasis on formulating the research proposal, conducting studies, analyzing data, reporting findings, and interpreting results; includes a critical analysis of the professional research literature. Prerequisite: LS 504. 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 Adv Cat and Class 3.00**  
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 556 Resources in the Sciences, Technology and Medicine 3.00**  
Surveys the information sources and services typically found in science, technology, and health collections, libraries or information centers. Includes in-depth examination of major information sources, print and electronic, and of various ways users access this information. Prerequisite: LS 500.
- LS 557 Resources in the Social Sciences 3.00**  
Surveys the print and electronic information sources typically found in social science collections, including areas of anthropology, business, economics, education, geography, history, political science, and psychology. Examines the various ways users access this information and the associated services provided by libraries and information centers. Prerequisite: LS 500.
- LS 558 Resources in the Humanities 3.00**  
Surveys the print and electronic information sources typically found in humanities collections, including areas of art, literature, music, philosophy, and religion. Examines the various ways users access this information and the associated services provided by libraries and information centers. Prerequisite: LS 500.
- LS 562 Government Info & Librnshp 3.00**  
Study and evaluation of federal, state, municipal, and intergovernmental publications, print and electronic; the nature of government materials, their reference and research value; techniques of organization, access, and control of print and electronic materials; issues concerning various government electronic resources. Prerequisite: LS 500
- LS 563 Foundations of Information and Records Management 3.00**  
An introduction to the theories, methodologies, and technologies used in managing organizational and institutional information and records. Topics include the origins and development of records and information management, information governance, records and information creation/capture and classification and filing, retention scheduling, vital records, risk management, equipment and more.
- LS 568 Hist of Books & Printing 3.00**  
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 Mgmt of Tech & Access Ser 3.00**  
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. Prerequisites: LS 505, 504.
- LS 570 Internship in Librianship 3.00**  
Provides an advanced preprofessional experience through work in a cooperating library or information center. Students are expected to apply and evaluate the theory and practice learned in the classroom; prepare an evaluative paper, and be observed and nd evaluated by the site supervisor. Accreditation assessments administered. Prerequisites: successful completion of at least 30 credit hours, including all other required courses; permission of advisor, internship coordinator, and the department c hair. For students not seeking initial certification.
- LS 572 Law In Libraries 3.00**  
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.
- LS 573 Integrated Technologies in Libraries 3.00**  
A survey of integrated technologies for libraries examined through case studies, product reviews, and library marketplace reports; topics include, but not limited to, 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.
- LS 574 Online Information Retrieval 3.00**  
Web-based information retrieval is explored and discussed. A variety of search engines, strategies, and protocols are examined and compared. Prerequisite: LS 504
- LS 575 Digital Libraries 3.00**  
Provides 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.
- LS 576 Special Topics 3.00**  
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 Librs, Lit & The Child 3.00**  
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 Pub Libs Rural Am 3.00**  
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 3.00**  
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 Lib Mktg & The Community 3.00**  
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.

<b>LS 582</b>	<b>Electronic &amp; Continuing Resources</b> <b>3.00</b> Examines the organization and management of electronic resources and print/online continuing publications, such as journals, annuals, etc.; highlights issues surrounding subscriptions, licensing, access, and ownership of materials.		
<b>LS 583</b>	<b>Lib Lit And Young Adults</b> <b>3.00</b> 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.		
<b>LS 587</b>	<b>Indexing &amp; Abstracting</b> <b>3.00</b> In-depth survey and hands-on development of documents surrogates, including annotations, abstracts, precis, and other forms of indexing.		
<b>LS 588</b>	<b>Pres &amp; Conserv of Lib Ma</b> <b>3.00</b> 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.		
<b>LS 589</b>	<b>Applying Web Technologies in Libraries</b> <b>3.00</b> Studies the application and use of emerging Web content and technologies in diverse library settings.		
<b>LS 590</b>	<b>Global Perspectives in Librarianship</b> <b>3.00</b> 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. Annual, summer.		
<b>LS 591</b>	<b>Bus Ref Sources &amp; Serv</b> <b>3.00</b> 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.		
<b>LS 600</b>	<b>Research in Librarianship</b> <b>3.00</b> Intended as capstone experience for students in the Master of Science in Library Science program. Provides the opportunity to pursue a research project related to the student's area of specialization or interest and which is based on a research strategies developed in LS 550. Accreditation assessments administered. Prerequisites: LS 550 and successful completion of at least 30 credit hours, including all other required courses; project approval by advisor, instructor, and the department chair. For students not seeking initial teacher certification.		
<b>LS 601</b>	<b>Independent Study</b> <b>3.00</b> 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. Topic for study must be approved by the student's advisor and the department chair. Prerequisites: four core courses and four elective courses relevant to the proposed independent study. Offered on demand.		
<b>MAED 501</b>	<b>Teaching Sec Mathematics</b> <b>3.00</b> Teachers will learn how to integrate a variety of different strategies in teaching secondary mathematics. They will improve their understanding of mathematical concepts and apply these instructional strategies to improving student understanding. Prerequisite: Certification in teaching math. Offered: Summers and occasionally Spring.		
<b>MAED 511</b>	<b>Technology for Teaching Secondary Mathematics</b> <b>3.00</b> This course is 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.
<b>MAED 532</b>	<b>Teaching Statistical Reasoning</b> <b>3.00</b> Quantitative Literacy (QL) has proven to be 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 this course will explore real data focusing on classification, graphing, sampling, probability, simulation, and inference. This direct involvement and in-depth training will enable teachers to experience first-hand the value of QL and gain confidence in their abilities to incorporate it into their classrooms. The course will include a fall follow up session where teachers report the use of a quantitative reasoning activity in their own classroom. Prerequisite: certification in teac		
<b>MAED 537</b>	<b>Geometry/Trig for Sec Ed Tchrs</b> <b>3.00</b> The course will visit axiom systems, review the core theorems of high school geometry, consider advanced topics in Euclidean Geometry, explore Non-Euclidean Geometries, examine Area and Transformations, look at trigonometry and have student presentations of a relatively new geometric topic. Computer software (Geometer's Sketchpad, Kalliedomania, maple, ...) will be at the center of the students work. Prerequisite: Admission into the program or permission of the instructor. Offered: Summer.		
<b>MAED 540</b>	<b>Discrete Math for Teachers 7-12</b> <b>3.00</b> A course to review and develop a sound mathematical foundation for discrete mathematics topics covered in secondary school mathematics.		
<b>MAED 550</b>	<b>Pre-Algebra for Teacher</b> <b>3.00</b> Teachers will learn how to integrate a variety of different strategies in teaching concepts found in prealgebra (grades 6-8). They will improve their understanding of the mathematical concepts from an advanced perspective and apply these instructional strategies to improving student understanding. Prerequisite: certification in teaching-mathematics teachers who are presently teachers of grades 5-9. Offered: Summer.		
<b>MAED 551</b>	<b>Algebra &amp; Number Theory for Teachers</b> <b>3.00</b> Students will examine pedagogy and use recent technology to reinforce their understanding of algebra and number theory topics covered in high school algebra and how to present them to their students. They will develop a deeper understanding of the principles underlying these topics, allowing them greater ability to adapt their teaching to meet the changing needs of their students. Additionally, they will look at the effects that technology is having on the subject matter taught and the methods of teaching it. Prerequisite: MATH 451 or equivalent.		
<b>MAED 556</b>	<b>Research in Math Tch &amp; Learn</b> <b>3.00</b> Students will investigate the research in mathematics teaching and learning that has been conducted in the last century, and particularly in the last three decades. Through this investigation, students will become more aware of critical issues within the field of mathematics education. Various areas will be 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 Secondary Mathematics or permission of instructor. Offered: Summer		
<b>MAED 571</b>	<b>Analysis for Teachers</b> <b>3.00</b> This course is designed to give secondary mathematics teachers an in-depth look at the analysis covered in the secondary mathematics curriculum. The concept of the function will be covered in great detail. This course will also cover the historical development of calculus to gain greater insight into the fundamental theories of calculus (secondary level). Prerequisite: certification in teaching secondary mathematics or permission of		



- instructor.
- MAED 581 Problem Solving 3.00**  
The course is designed to give students 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 will help 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: Meth of Teach & Eval Math and permission of instructor. Offered: Summer
- MAED 585 App & Math Model for Teacher 3.00**  
A course to use mathematics in representing and solving real world problems. Mathematical concepts from middle school and high school mathematics will be applied to problems in social, physical, and biological sciences. Pedagogical and assessment issues will be studied. Prerequisite: Certification in teaching mathematics, or mathematical science teachers in grades 7 through 12. Highly recommended: calculus, linear algebra, differential equations, or statistics. Offered: Summer.
- MAED 590 Historical Dev of Mathematics 3.00**  
Students will explore the development of mathematics, from the early development of numeration systems to modern mathematics. They will learn how the technology and culture of different places and times affected the topics developed as well as the methods used. Students will also discuss and develop ways to incorporate this information into their classroom teaching and to encourage cross disciplinary connections. Prerequisite: Degree in mathematical sciences or permission.
- MATH 422 Mathematical Stats II 3.00**  
Analyzes mathematical expectation, discrete and continuous random variables, probability densities, sampling distributions, point estimations, interval estimations, tests of hypotheses, regression and correlation, analysis of variation, and moment-generating functions. Prerequisite: MATH 421. Spring, odd-numbered years.
- MATH 451 Modern Algebra I 3.00**  
Introduces groups, rings, integral domains, and fields. Emphasizes rigorous proof and logical methods. Prerequisite: MATH 300. Fall and spring, respectively.
- MATH 452 Modern Algebra II 3.00**  
Introduces groups, rings, integral domains, and fields. Emphasizes rigorous proof and logical methods. Prerequisite: MATH 300. Fall and spring, respectively.
- MGMT 420 Operations Research 3.00**  
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 Bus Society, & Corp Conduct 3.00**  
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 Entrepreneurial Leadership Seminar 3.00**  
Hands-on approach to the study of small business as it applies to the various sectors of the economy. Students gain direct exposure to small business through the development of a formal business plan for a new small business. Emphasizes the entrepreneurial activities involved as they relate to this process. Prerequisite: MGMT 320. Once every three semesters.
- MGMT 428 Entrepreneurship 3.00**  
Explores entrepreneurship and the entrepreneurial process associated with new venture formation. Emphasizes creativity and innovation as they relate to the initiation of a new business. Highlights the preparation involved in the formation of a new venture, developing the entrepreneurial plan, and adapting to contemporary challenges facing the entrepreneur. Prerequisite: MGMT 320. Once every three semesters.
- MGMT 450 Quality Management 3.00**  
Examines Total Quality Management (TQM), including the philosophies and principles of Deming, Juran, and Crosby. Focuses on the management and continuous improvement of quality and productivity in manufacturing and service organizations. Includes quality measurement, quality assurance, giving employees responsibility for quality, the team approach to quality, employee recognition, and various TQM tools and techniques. Prerequisite: MGMT 320. Annually.
- MGMT 470 Project Management 3.00**  
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. Graduate students will analyze a case study; present it to the class; and provide a 10-15 page written report on the case study analysis to the instructor. Prerequisites: CIS 301 and MGMT 320 or permission of instructor.
- MGMT 483 Compensation Management 3.00**  
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. Spring.
- MGMT 485 Labor Rel & Pub Policy 3.00**  
Examines the industrial relations functions as they relate to federal, state, and local statutes and industrial policies. Includes OSHA, EEOA, NLRA, LMRA, and LMRDA, workers' compensation, and unemployment compensation. Prerequisite: MGMT 324. Fall.
- MGMT 486 Occupant Safety Management 3.00**  
Provides students with information concerning management techniques, government regulations and safety, and health program development within organizational settings. Prerequisite: MGMT 320. Fall.
- MGMT 500 Mgmt Theory and Practice 2.00**  
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.
- MGMT 521 Leadership & Organization 3.00**  
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 522 Healthcare Management Systems 3.00**  
This course provides the student with a foundation in healthcare management systems and technology. The discussion will examine the role that health management systems play in improving and managing healthcare services, efficiency, and innovation. The course will also examine various technologies emerging in healthcare. Offered annually.
- MGMT 555 Managing Healthcare Organizations 3.00**  
This course provides the student with an overview of the U.S. healthcare system and current issues managers face. Students will examine the role that management plays in planning, organizing, controlling and leading healthcare organizations into the future. They will also examine various managerial roles at various levels. International comparisons may be included. Prerequisite: MGMT 500 or 521. Offered annually.

<b>MGMT 570</b>	<b>Project Management</b>	<b>3.00</b>	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 projects. Key topics include monitoring and controlling schedules, progress reporting, risk management, quality management, cost management as well as contracting and procurement. Graduate students will analyze a case study; present it to the class; and provide a 10-15 page written report on the case study analysis to the instructor. Prerequisite: Permission of instructor or MGMT 500.	ethical and legal issues affecting the environment of e-marketing.
<b>MGMT 621</b>	<b>Human Resources Mgmt</b>	<b>3.00</b>	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.	<b>MKTG 500</b>
<b>MGMT 622</b>	<b>Multinational Business</b>	<b>3.00</b>	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.	<b>Prin of Marketing</b>
<b>MGMT 625</b>	<b>Negotiations/Arbitrat</b>	<b>3.00</b>	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.	<b>2.00</b>
<b>MGMT 626</b>	<b>Global Operations Management and Information Systems</b>	<b>3.00</b>	Traditional Operations Management is taught via lecture while integrating the use of Information Systems and Supply Chains. Case analysis is integrated into the course with analyses that are based on Operations, Information Systems, and Supply Chains as they operate globally. Prerequisite: BSAD 503.	The process in our society by which needs and wants of consumers are anticipated and satisfied. An examination of a systems approach to and analysis of the organizational function and the set of processes for creating, communicating and delivering value to customers and for managing customer relationships in ways that benefit the organization and its stakeholders. Students develop an understanding of the increasing complexity of the modern marketing system, why it is essential, and how it performs in both domestic and international marketing situations. Prerequisites: ECON 175 or 212, and junior standing.
<b>MGMT 650</b>	<b>Quality Management</b>	<b>3.00</b>	Examines Total Quality Management (TQM), including the philosophies and principles of Deming, Juran, and Crosby. Focuses on the management and continuous improvement of quality and productivity in manufacturing and service organizations. Includes quality measurement, quality assurance, giving employees responsibility for quality, the team approach to quality, employee recognition, and various TQM tools and techniques. Prerequisite: MGMT 320.	<b>MKTG 560</b>
<b>MKTG 461</b>	<b>Marketing Research</b>	<b>3.00</b>	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. Fall.	<b>Mktg Decision Making</b>
<b>MKTG 465</b>	<b>Marketing Problems</b>	<b>3.00</b>	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. Spring.	<b>3.00</b>
<b>MKTG 468</b>	<b>Buyer Behavior</b>	<b>3.00</b>	Examines theories, models, recent research, and research techniques in consumer motivation and decision making, and buyer-seller interaction, including consumer buyers, business and organizational buyers. Includes traditional consumer marketing, business-to-business and e-marketing issues. Prerequisites: MKTG 360 and PSY 211 or permission of the instructor. On demand.	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.
<b>MKTG 469</b>	<b>International Marketing</b>	<b>3.00</b>	Analytical approach to study marketing and e-marketing management decisions involving multinational operations. Focuses on the management of the marketing functions within the multinational corporation. Prerequisite: MKTG 360. On demand.	<b>MKTG 562</b>
<b>MKTG 491</b>	<b>E-Marketing</b>	<b>3.00</b>	The study of concepts, vocabulary, and contemporary practices in e-marketing management including e-marketing planning, e-marketing mix decision-making,	<b>Channels of Distributions</b>
				<b>3.00</b>
				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.
				<b>MKTG 570</b>
				<b>Real Estate Market and Investment Analysis</b>
				<b>3.00</b>
				This course will examine the fundamentals of real estate analysis. It will explore real property law, appraisal, finance, market and investment analysis, and property management.
				<b>MKTG 604</b>
				<b>Marketing Research</b>
				<b>3.00</b>
				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.
				<b>MKTG 661</b>
				<b>Marketing Strat</b>
				<b>3.00</b>
				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.
				<b>NURS 601</b>
				<b>Adv Concepts In Pathophy</b>
				<b>3.00</b>
				This course is devoted to the study of the physiological process of disease and the body's response to this process. It is the goal of the course to present broad physiological principles that advance nurse practitioners can apply to their clinical experiences. Specific diseases will be used to exemplify pathophysiological concepts, and treatment is examined at the molecular level as response to the pathophysiology. The course investigates exogenous causes of diseases emphasizing infection, inflammation, and the immune response as well as endogenous diseases of the nervous, endocrine, cardiovascular, hepatic, pulmonary, and renal systems. Fall, annually
				<b>NURS 602</b>
				<b>Pharmacologic Applic</b>
				<b>3.00</b>
				This course will cover 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 on pharmacological implications for the family nurse

	practitioner in working with individuals across the life span. Prerequisite: NURS 601. Spring, annually and as needed.	
<b>NURS 605</b>	<b>Evolution Of Nurs Theory</b> This course 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. Fall, annually.	<b>3.00</b>
<b>NURS 610</b>	<b>Adv Concepts Nurs Resear</b> This course 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 applicability to practice. Additionally, students will develop a proposal for an individual or group research project which may become the foundational work for the scholarly project/thesis. Prerequisite: NURS 605 or by permission of instructor. Spring, annually and as needed.	<b>3.00</b>
<b>NURS 614</b>	<b>Health Promo: Fam &amp; Comm Pers</b> This course 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 on risk assessment and knowledge of national standards of clinical preventive services. Fall, annually.	<b>3.00</b>
<b>NURS 615</b>	<b>Adv Health Assessment</b> 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. Prerequisite or Co-requisites: NURS 601. Offered fall annually and as needed.	<b>2.00</b>
<b>NURS 616</b>	<b>Advanced Health Assessment Practicum</b> Provides 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 as a co-requisite to NURS 615. Prerequisite or co-requisite: NURS 601. Fall, annually and as needed.	<b>2.00</b>
<b>NURS 617</b>	<b>Advanced Health Assessment Practicum for Nurse Educators</b> Provides an opportunity for the nurse educator student to implement the objectives identified in NURS 615. Emphasis is on acquisition of physical assessment skills across the lifespan within the context of the role of nurse educator. Students may select experiences from a variety of clinical settings appropriate to the course, focus. Three clinical hours weekly. Prerequisites: NURS 601 (or taken concurrently); must be taken with NURS 615 as a co-requisite; open to nurse educator students only.	<b>1.00</b>
<b>NURS 620</b>	<b>Clinical Decision Making I</b> The focus of this course is clinical data gathering skills, diagnostic reasoning, and clinical problem-solving in the management of common health problems 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 intervention of appropriate nursing and other therapeutic interventions to be used by the advanced practice nurse. This course if required as a prerequisite	<b>1.00</b>
<b>NURS 621</b>	<b>Clinical Decision Making I Practicum</b> Provides 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 as a co-requisite to NURS 620. Prerequisite: NURS 615. Spring, annually and as needed.	<b>2.00</b>
<b>NURS 622</b>	<b>Family Nurse Practitioner Role Development</b> Explores the evolving role of the family nurse practitioner as an advanced practice nurse. Focus is on acquisition of advanced practice skills and application of decision making models that guide evidence based practice. Professional, ethical, and legal accountability is emphasized. Prerequisite: NURS 615 and NURS 616; must be taken concurrently with NURS 621 and NURS 620.	<b>1.00</b>
<b>NURS 630</b>	<b>Clinical Dec Making II</b> 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 dimension of development and the total health of the family are considered. Collaboration with other healthcare providers is fostered. Three lecture hours weekly. Must be taken concurrently with NURS 631 and NURS 632. Prerequisites: NURS 601, 602 and 614 and minimum grade of B in 615 and 620. Offered annually.	<b>3.00</b>
<b>NURS 631</b>	<b>Clin Dec Mak II Role Sem</b> 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. Prerequisites: NURS 601, 602, and 614; Minimum grade of B in NURS 615 and 620. Offered fall annually.	<b>1.00</b>
<b>NURS 632</b>	<b>Clinical Dec Making II Pract</b> Provides an opportunity for the students 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. Prerequisites: NURS 601, 602, and 614; Minimum grade of B in NURS 615 and 620. Offered fall annually.	<b>2.00</b>
<b>NURS 640</b>	<b>Clinical Dec Making III</b> 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. Prerequisites: NURS 601, 602, and 614 and minimum grade of B in NURS 615, 620, and 630. Offered fall annually.	<b>3.00</b>
<b>NURS 641</b>	<b>Clin Dec Mak III:Role Sem</b> 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. Prerequisite: NURS 601, 602, and 614; Minimum grade of B in NURS 615, 620, and 630. Offered spring annually.	<b>1.00</b>
<b>NURS 642</b>	<b>Clin Dec Making III Practicum</b>	<b>2.00</b>



	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.	
<b>NURS 645</b>	<b>Nursing &amp; Public Policy</b>	<b>3.00</b>
	This course 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. Spring, annually.	
<b>NURS 675</b>	<b>Nursing Curriculum Development</b>	<b>3.00</b>
	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. Fall, every other year and/or as needed.	
<b>NURS 676</b>	<b>Ed Strategies In Nursing</b>	<b>3.00</b>
	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. Fall, every other year and as needed.	
<b>NURS 677</b>	<b>Eval &amp; Assessment In Nursing</b>	<b>3.00</b>
	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. Spring, every other year and/or as needed.	
<b>NURS 750</b>	<b>Family Nurse Practitioner Internship</b>	<b>6.00</b>
	Provides the opportunity to gain competency in the multifaceted role of nurse practitioner through a 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, including completion of NURS 800. Spring annually and as needed.	
<b>NURS 751</b>	<b>Nurse Educator Internship</b>	<b>3.00</b>
	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, including completion of NURS 800. Spring, annually and as needed.	
<b>NURS 800</b>	<b>Research Project/Thesis</b>	<b>6.00</b>
	Scholarly research paper based on an innovative and/or creative study pertinent to nursing or a related area. Students register for a minimum of 3 credits and complete the thesis/project in one calendar year. Students who do not complete the thesis/project in one calendar year must register for 1 additional credit each consecutive term until completion up to a maximum of 6 credits. Prerequisite: NURS 605 and 610.	
<b>NURS 805</b>	<b>Doctor of Nursing Practice Role Seminar</b>	<b>1.00</b>
	Provides an overview of program expectations while examining the roles of the DNP-prepared advanced practice nurse as expert clinician, researcher, health	
	policy advocate, and educator. Students will begin to identify research ideas and formulate an internship plan with the support and feedback of peers.	
<b>NURS 806</b>	<b>Leading Nursing in Health Care Systems</b>	<b>3.00</b>
	Provides the advanced practice nurse leadership skills for empowering and influencing others to bring about change. Focus is on understanding multiple perspectives and applying theories of leadership, organizational behavior, and systems to a variety of settings. Ethical and legal strategies to influence procedures and policy will be emphasized.	
<b>NURS 807</b>	<b>Information Management in Health Care</b>	<b>3.00</b>
	Provides students with essential knowledge and skills to utilize information and management systems to support evidence based practice. The role of information management systems and data bases in health care will be discussed, Students will employ information technology to implement decision support programs that are pertinent to improved practice. Co-requisite: NURS 808.	
<b>NURS 808</b>	<b>Analytical Methods of Evidence Based Practice</b>	<b>3.00</b>
	Emphasis is on analytical methods to critically appraise evidence-based literature and translate research to clinical practice. Students appraise current literature related to their chosen topic, constructing an evidence basis for their selected practice project. Co-requisites: NURS 807. Fall, annually.	
<b>NURS 809</b>	<b>Advanced Topics in Nursing Practice</b>	<b>3.00</b>
	Explores emerging literature related to management of complex health conditions across the lifespan. Emphasis is on health promotion and care of communities and populations. The effective utilization of health care systems, principles of epidemiology, environmental health, and community partnering and planning will be examined as they relate to population health promotion.	
<b>NURS 810</b>	<b>Advanced Topics in Clinical Management</b>	<b>3.00</b>
	Explores the management of complex health conditions across the lifespan with a focus on individuals and their families. Topics will vary and be drawn from emerging fields such as genetics, immunology, behavioral health, pharmacology, and preventive medicine.	
<b>NURS 811</b>	<b>Practice Strategies for Advanced Practice Nurses</b>	<b>3.00</b>
	Provides advanced practice nurses an understanding of new venture development as it prepares them to seek innovative solutions to health care issues. Approached from the perspectives of developing a business plan for independent practice as well as thinking creatively to craft responses to social problems that impact health care.	
<b>NURS 812</b>	<b>Systematic Evaluation in Health Care</b>	<b>3.00</b>
	Provides an overview of the strategies and tools for assessing and achieving improvement in health care. Adapted from the Achieving Competence Today (ACT) curriculum, students will identify and analyze systems problems that compromise the quality and safety of care and then develop an improvement plan.	
<b>NURS 820</b>	<b>Principles of Adult Learning in Nursing</b>	<b>3.00</b>
	This course focuses on major research-based philosophies, models, and theories of adult learning and knowledge development in nursing. Theories and models are analyzed and applied to the dual role of advanced practice nurses as clinical educators in varied settings. Legal/ethical and cultural influences on teaching and learning are emphasized.	
<b>NURS 830</b>	<b>Clinical Teaching Strategies in Nursing</b>	<b>3.00</b>
	Evidence-based teaching and learning strategies for adult learning and nursing education in formal and informal learning settings are explored. Emphasis is on structuring teaching strategies to assure effective individual and group learning. Simulation, case studies, structured presentation, and other innovative strategies are reviewed.	
<b>NURS 840</b>	<b>Advanced Evaluation Strategies in Nursing Education</b>	<b>3.00</b>
	This course will explore concepts related to assessment, measurement, and evaluation in nursing education. Decision-making, objectivity verses	



- subjectivity, and legal and ethical issues related to evaluation will be explored. The components of reliable, valid evaluations will be highlighted. Students will engage in planning and construction of evaluations.
- NURS 850 Doctor of Nursing Practice Internship I 3.00**  
First of two required internships. Provides students an opportunity to enhance and integrate prior learning. Student acquires and applies DNP and advanced practice competencies in a mentored setting as a preceptor care provider for individuals with complex medical conditions. Student self-identifies learning goals/plan for faculty approval. Prerequisite: NURS 805, 806, 807, 808, 809 and specialty electives related to internship focus. Fall, annually.
- NURS 851 Doctor of Nursing Practice Internship II 6.00**  
Second of two required internships. Provides students additional opportunity to enhance and integrate prior learning and to acquire and apply DNP and advanced clinical practice competencies in a mentored clinical setting. Focus is on vulnerable populations and their communities. Student identifies learning goals and follow a faculty-approved plan. Prerequisite: NURS 850. Spring, annually.
- NURS 900 Doctor of Nursing Practice Capstone 6.00**  
Focus of this capstone course is on the development, implementation, evaluation, and dissemination of a research project that translates evidence to practice. Project will relate to the advanced practice nursing role and benefit a group, population or community rather than an individual patient. Prerequisite: NURS 805, 806, 807, 808, 809. Enrollment by permission of instructor only. Summer, annually.
- PH 400 Special Topics 3.00**  
This course includes an introduction to gate circuits, Boolean algebra in the minimization of gate circuits, flip-flops, counters, timers, the design, operation, and programming of microcomputers, D/A and A/D conversion, and the interfacing of integrated circuits to external devices. Prerequisite: PH 259/269 or PH 252, and MATH 271.
- PH 457 Demo In Physics 2.00**  
Designed for the secondary education major in physics and may not be used as a physics elective for the B.A. or B.S. in physics major. Stresses preparation and performance of classroom demonstrations for use in secondary schools. Prerequisite: PH 252 or 259. On demand.
- PH 460 Intro to Math Physics 3.00**  
Uses the techniques of vector calculus and differential equations to treat problems in mechanics, electricity, and other areas of physics at a level intended to prepare the physics major for graduate level work. Discusses and applies analog and digital computer techniques to a variety of physical problems. Prerequisites: PH 258, 259, mathematics through MATH 350. On demand.
- RE 570 Real Estate Market and Investment Analysis 3.00**  
This course will examine the fundamentals of real estate analysis. It will explore real property law, appraisal, finance, market and investment analysis, and property management.
- REHB 405 Substance Abuse 3.00**  
Participants study the physiological and psychosocial implication of drug or alcohol abuse, over-medication, and drug dependence, emphasizing intervention, advocacy, treatment, and prevention. Fall Semester.
- REHB 410 Prev & Trmt Stg Sub Abus 3.00**  
Participants engage in the study of societal pressures, attempts to prevent substance abuse, and treatment strategies along with the comparative analysis of efficacy. Prerequisite: REHB 405. Spring Semester.
- REHB 510 Group Process 3.00**  
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 519 Statistical Applications and Research for the Behavioral Sciences 3.00**  
This course provides the statistical background necessary for research design and evaluation. Topics covered include scaling of data, descriptive statistics, probability, and statistical inference. Students will become familiar with statistical techniques including correlations, chi-square, t-tests, analysis of variance, and simple regression. Students learn to compute statistics by hand and with the use of statistical software and web-applications.
- REHB 520 Introduction to Clinical Research 3.00**  
This course provides the essential knowledge and skills required to be both critical consumers and producers or research 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 525 Clinical Tests and Measures 3.00**  
This course provides graduate students with theoretical and applied knowledge of the role of testing and measurement in counseling practice. An overview of testing theory including test construction and issues of validity and reliability is provided. Issues of test bias are addressed. Students also learn the practical application of assessment measures including intake assessments, case studies, mental status evaluations, mental health screenings, personality assessment, and measures of cognitive functioning. All students will be able to select, administer, and interpret tests that are appropriate for a range of counseling situations. Prerequisite: Graduate status. Offered every 3 years.
- REHB 530 Human Growth Across the Lifespan 3.00**  
This course will provide 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 531 Impact of Disabling Conditions 3.00**  
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. Prerequisite: Enrollment in Graduate Program
- REHB 532 Professional Orientation and Ethical Practice in Counseling and Rehabilitation 3.00**  
This course identifies and examines the history and philosophy of the counseling profession, goals and objectives of professional counseling organizations, various professional Codes of Ethics, professional credentialing and licensure, role identity of types of professional counselors, application of ethical and legal considerations in counseling, self-care strategies, and advocacy processes to address social and institutional barriers that impede access, equity, and success for clients. Self-growth experiential activities may be associated with this course content. Offered as needed.
- REHB 537 Lifestyle & Career Devel 3.00**  
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 Counseling 3.00**  
This course provides professionals with information and skills to effectively assess and intervene in crisis situations involving clients, families, organizations and communities. Biannually
- REHB 540 Principles of Psychiatric Rehabilitation & Recovery 3.00**  
This course introduces students to the principles of psychiatric rehabilitation and recovery. Inherent in this philosophy is the belief that every individual has the capacity for recovery and that desirable treatment systems build upon strengths and encourage and support the involvement of persons

- in normative community living, learning and working situations. Prerequisite: REHB 126 and REHB 250.
- REHB 542 Theories of Helping Relationships 3.00**  
This course provides students with the most current assessment of the constructs, principles, and techniques of major counseling theories. Emphasis will be given to mainstream individual theories with some attention to system models.
- REHB 545 Rehabilitation-Phil & Prin 3.00**  
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 3.00**  
This course 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 552 Identity and Culture 3.00**  
The goal of this course is to expand awareness of our multicultural society. This includes imparting knowledge of the constructive role played by counselors in eliminating prejudice and promoting social justice and wellness. Self-awareness and cultural competence will be explored. Various theories, counseling techniques, and ethical considerations necessary for effective cross-cultural counseling and assessment will be covered.
- REHB 560 Models of Human Serv 3.00**
- REHB 565 Sem In Rehb Serv Del Sys 3.00**  
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 567 Sem Adv App Beh Analysis 3.00**  
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.
- REHB 570 Assess & Intervn Stratg 3.00**  
Features a practical hands-on approach to assessment and intervention with a variety of specific populations. Target groups include people with mental retardation, mental disorders, and chemical dependency, as well as aging and adolescent populations. Covers fundamental issues, applied strategies, and assessment techniques leading to the formulation, implementation, and evaluation of therapeutic treatment plans. Prerequisite: REHB 460.
- REHB 575 Admin Rehb Deliv Systems 3.00**  
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: Counseling Skills and Techniques 3.00**  
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 Rehab Pers Living w/ HIV/Aids 3.00**  
The course provides an overview of rehabilitation issues involved in working with people living with HIV/AIDS. Topics will include an overview of the medical aspects of the virus. Special emphasis will be placed on issues of rehabilitation, including mental health, substance abuse, support networks, social relationships, and employment.
- REHB 585 Spec Topics In Rehab Science 3.00**  
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 Addiction and Dual Diagnosis 3.00**  
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 3.00**  
Participants engage in either scholarly or applied research related to rehabilitative sciences under the supervision of a faculty member. By permission only.
- REHB 591 Diagnosis and Treatment 3.00**  
This course covers principles of clinical diagnosis and treatment of mental and emotional disorders in children and adults. Important diagnostic tools and criteria are reviewed, including but not limited to the current edition of the Diagnostic and Statistical Manual (DSM). This course will also cover important treatment modalities and appropriate placement in the available continuum of care. Offered as needed.
- REHB 592 Family Systems 3.00**  
This course was designed to meet the CACREP 2009 Standards for Marriage, Couples, and Family Counseling. This course provides an introduction to general systems theory of family development and interactions as well as providing an overview of the history of family therapy. Students will be introduced to a variety of family systems theories (i.e. Communications Theory, Transgenerational Approaches, Symbolic-Experiential, Structural Theory, Strategic Family Therapy, Social Learning Theory, Postmodern & Constructivist Approaches), evidence-based interventions, and multicultural and ethical considerations for working with couples and families. This course also qualifies as a Family Studies course for licensure purposes. Prerequisite: REHB 530,
- REHB 593 Integration, Consultation, and Collaboration 3.00**  
This course provides a general framework for understanding, developing, and practicing consultation, and collaboration skills as a mode of intervention and as a distinctive modality of change. The course will examine the historical development of consultation, major models of consultation, and students will demonstrate their understanding of major theoretical models in both case presentations and a personal model of consultation and collaboration. Prerequisite: REHB 519, 520, 530, 532, 542, 552 & 580. Offered annually and as needed.
- REHB 594 Clinical Field Education: Practicum 3.00**  
This is an initial field placement in which students work directly with clients under the supervision of an experienced counselor. The course is designed to increase counseling skills and confidence, and to become familiar with the practical aspects of providing services, such as not taking, treatment coordination and case management. A minimum of 120 hours of onsite service is required, with minimum of 40 hours spent in direct service with clients. Students must also attend group supervision class at Clarion University each week for 15 weeks and participate in University sponsored individual or triadic supervision weekly. Prerequisite: 30 + grad credits in M.S. REHB Program. Offered as needed.
- REHB 595 Clinical Field Education and Supervised Internship Experience 12.00**  
This elective course is a semester-long supervised practicum field experience in community based (re)habilitation programs. It includes professional development experiences in community residential programs, substance abuse prevention and treatment programs, case management agencies, vocational rehabilitation services, court supervision programs, dual diagnosis programs, MH/MR base service units, or

- similar social service programs. Students can register for a maximum 12 total credits of REHB 595, depending upon their need and career goals.
- REHB 600 Thesis 3.00**  
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: ED 520.
- SCED 456 Electronic Science Ed 4.00**  
Intended for the science teacher who has had a little or no previous course work in physics or mathematics. Covers the fundamental law of electricity and magnetism, alternating current theory, and the theory and practical application of such devices as ammeters, voltmeters, oscilloscopes, vacuum tubes, transistors, power suppliers, amplifiers, and oscillators. Examples of some of these devices will be built in the laboratory, and general procedures for trouble-shooting faulty equipment will be illustrated. Summer only, on demand.
- SCED 463 Field Astronomy 3.00**  
Examines experimental tools and methods useful in astronomy. Concentrates on mastery of important techniques and concepts by a do-it-yourself process, not an encyclopedic survey of astronomy. Complements courses in descriptive astronomy (ES 200 and 201 and SCED 550) rather than duplicating them, serving much the same purpose as a laboratory in astronomy. The student will build simple telescopes, spectrometers, and other astronomical instruments. Summer only, on demand.
- SCED 466 Field Photography 3.00**  
Teaches students how to use a modern camera and accessories to photograph subjects in the field. Includes techniques of close-up, telephoto, and wide-angle photography as well as film development, lighting, use of filters, and composition. Provides students with opportunities to learn and practice techniques for photographing such objects as small animals, birds, flowers, large animals, and other field subjects. Students provide camera and film. Summers only, on demand.
- SCED 500 Seminar 3.00**  
Current topics in science education. May be repeated (as topics vary) up to nine credits. On demand.
- SCED 501 Sem in Sci Misconception 3.00**  
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 Tech 3.00**  
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 Sci Ed 4.00**  
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 Investigations in the Sciences 3.00**  
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 Biol 3.00**  
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 Botany 3.00**  
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 3.00**  
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 3.00**  
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 Ecology 3.00**  
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 3.00**  
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 3.00**  
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 3.00**  
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 Res and Mat 3.00**  
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 3.00**  
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 Internship 4.00**  
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 3.00**  
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 3.00**  
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 553 Meteorology 3.00**  
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 Adv Science 3.00**  
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 3.00**  
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 Writ For Sced 3.00**  
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 Sci Cur Mid & Jr High 3.00**  
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 1.00**  
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 563 Projects Astronomy 1.00**  
Emphasizes the selection and preparation of demonstrations and projects in astronomy for teachers of elementary and secondary schools. Summer, on demand.
- SCED 566 Adv Field Photography 3.00**  
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 Develop 3.00**  
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 Sch Cur Dev 3.00**  
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 Pgm Improving Eled Sci 3.00**  
**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 Enhanc Ed Leader in Sci 1.00**  
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 Creat Integ of Sci El Ed 3.00**  
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 & Software-Eled 2.00**  
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 Orient Sci & Tech 3.00**  
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 Sci Tech & Soc: Topics 3.00**  
Interdisciplinary course designed to acquaint students with information, curricula and teaching methodologies appropriate for integrating STS topics into science and social studies instruction. Includes topics in nature of science, history of science, history of technology, ethical decision-making, and the influences of changes in science and technology on society. Required for all secondary science and social studies education majors. Spring semester.
- SCED 577 Micro Sci Lab Interface 1.00**  
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 Inform Tech Ed I 3.00**  
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.	
<b>SCED 579</b>	<b>Inform Tech Ed II</b>	<b>3.00</b>
	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.	
<b>SCED 585</b>	<b>Planetarium Management</b>	<b>3.00</b>
	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.	
<b>SCED 600</b>	<b>Research Project</b>	<b>3.00</b>
	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.	
<b>SPAN 501</b>	<b>St: Hispanic Lang &amp; Culture</b>	<b>3.00</b>
	In-depth examination of contemporary Hispanic literature and cultural issues including but not limited to such topics as Hispanic Women Writers, Latino Cultures in the U.S. and relationships between Hispanic nations and the U.S. Course is taught in Spanish. Prerequisite: SPAN 282 or permission from instructor.	
<b>SPAN 540</b>	<b>Hispanic Film</b>	<b>3.00</b>
	This course will examine major Spanish and Latin American films. It offers a special and important perspective to approach the contemporary history and culture of Hispanic countries. Students are encouraged to develop an awareness of differences between Hispanic and Anglo-American cultures. Course is taught in Spanish.	
<b>SPAN 561</b>	<b>Supr Readings Hispanic Lit</b>	<b>3.00</b>
	Selected readings determined by the needs and interests of the individual student.	
<b>SPED 415</b>	<b>In Dev Strat Mild/Mod Hand</b>	<b>3.00</b>
	This is the study of individualizing instruction for students with mild disabilities. It involves designing basic instructional sequences utilizing behavioral objectives, matching media, learner, and goal characteristics, and evaluating the effectiveness of instruction. Prerequisites: SPED 320, 360, 380, 381. Must be taken concurrently with SPED 416. Each semester.	
<b>SPED 418</b>	<b>Excep Reg Class Id &amp; Ser</b>	<b>3.00</b>
	Prepares students to deal with the nature and needs of the exceptional person in the regular classroom. Examines contemporary methods of identification, services for the exceptional individual, and legal aspects of the least restrictive environment. Prerequisite: Sophomore standing.	
<b>SPED 420</b>	<b>In Dev Strat S Ph</b>	<b>3.00</b>
	Study the processes of individualizing instruction for people with moderate, severe, and multiple disabilities. Design basic instructional sequences utilizing behavioral objectives, match instruction with learner and goal characteristics; identify appropriate instructional strategies, and evaluate the effectiveness of instruction. Students will apply oral and written communication skills, quantitative reasoning skills, and other fundamental academic skills to the field of special education. Prerequisite: SPED 320, 360, 380, 381. Must	
<b>SPED 428</b>	<b>Assistive Technology</b>	<b>1.00</b>
	Students will learn how to assess assistive technology requirements for people with disabilities, make low tech devices, and install and operate computer hardware and software applications in a laboratory experience. Prerequisites: SPED 128, 129, 245, 381, 462, 482 and students must receive a "C" or better in SPED 462..	
<b>SPED 441</b>	<b>Tch Stu w/ Disabilities In Sec</b>	<b>3.00</b>
	This course will prepare educators with the skills and knowledge to deliver and support instruction to students with disabilities in secondary classroom settings. Prerequisite: SPED 418.	
<b>SPED 442</b>	<b>Diff Inst In Inclusive Setting</b>	<b>3.00</b>
	This course 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.	
<b>SPED 443</b>	<b>Prev &amp; Trmt Acad &amp; Learning</b>	<b>3.00</b>
	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.	
<b>SPED 462</b>	<b>Educational Assessment</b>	<b>3.00</b>
	Assists students in acquiring knowledge and skills needed for decision-making regarding individuals with disabilities or suspected disabilities, and apply these skills in case studies. Prerequisites: SPED 128, SPED 129, SPED 245. Each semester.	
<b>SPED 482</b>	<b>Special Mathematics Instruct</b>	<b>3.00</b>
	Provides students with specific data-based strategies to teach mathematics to students with disabilities. Prerequisites: SPED 128, 129, 245, MATH 111.	
<b>SPED 500</b>	<b>Contemp Issues</b>	<b>3.00</b>
	Participants engage in problem-centered analyses and investigations, and in determination of responses relative to the contemporary issues confronting special education.	
<b>SPED 501</b>	<b>Found for Lit Inst Excep Read</b>	<b>3.00</b>
	Students will be provided an historical perspective concerning the teaching of reading and the relationships between psychological, sociological, and linguistic processes and how these influence reading and writing development.	
<b>SPED 502</b>	<b>Curr Des &amp; Mat Tch Excep Read</b>	<b>3.00</b>
	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.	
<b>SPED 503</b>	<b>Ed Assess for Excep Readers</b>	<b>3.00</b>
	In this course, students are taught the concepts, knowledge, and competencies required for specialized formal and informal reading assessment, interpretation, and diagnosis for grades pre-K to 12. Prerequisite: SPED 462	
<b>SPED 504</b>	<b>Tch Emergent &amp; Dev Excep Read</b>	<b>3.00</b>
	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. Prerequisite: SPED 501	
<b>SPED 505</b>	<b>Concepts of Intel</b>	<b>3.00</b>
	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.	
<b>SPED 506</b>	<b>Tch Excep Adol w/Reading Prob</b>	<b>3.00</b>
	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 consideration in reading instruction for adolescents with high-incidence disabilities in general education classrooms. Prerequisite: SPED 501	

<b>SPED 507</b>	<b>Writ &amp; Vis Exp for Excep Read</b> 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. Prerequisite: SPED 501	<b>3.00</b>	
<b>SPED 508</b>	<b>Prof Sem: Del Evid-Based Instr</b> 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. Prerequisites: SPED 504 and SPED 506	<b>3.00</b>	
<b>SPED 509</b>	<b>Interv Specialist St Teaching</b> Observation and participation in intervention in reading and/or mathematics and in activities related to the performance of an intervention specialist's work. Prerequisites: Completion of ED 574, SPED 501, 502, 503, 504, 506 and 507 with minimum grade of C, a cumulative QPA of 3.0; and the issuance of required state clearances.	<b>6.00</b>	
<b>SPED 514</b>	<b>Intro to Gifted Education</b> This course 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. No prerequisite. As needed.	<b>3.00</b>	
<b>SPED 519</b>	<b>Statistical Applications and Research for the Behavioral Sciences</b> This course provides the statistical background necessary for research design and evaluation. Topics covered include scaling of data, descriptive statistics, probability, and statistical inference. Students will become familiar with statistical techniques including correlations, chi-square, t-tests, analysis of variance, and simple regression. Students learn to compute statistics by hand and with the use of statistical software and web-applications.	<b>3.00</b>	
<b>SPED 521</b>	<b>Autism Spectrum Disorders</b> This course provides an overview of autism spectrum disorders, including history, incidence and prevalence, etiology, diagnosis, current research, characteristics and learning traits, co-morbid conditions, impact on family, and social ethical issues surrounding ASD.	<b>3.00</b>	
<b>SPED 522</b>	<b>Special Educ Class Admin</b> 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 on plans; and collaboration with other professionals, paraprofessionals and parents.	<b>3.00</b>	
<b>SPED 525</b>	<b>Ed Apprais Pres 2</b>	<b>3.00</b>	
<b>SPED 526</b>	<b>Clin Prac for High Inc Disab</b> This practicum places teacher candidates into field settings involving people with high incidence disabilities who use an individualized curriculum. Teacher candidates will match instruction with learner, goal, and curriculum characteristics; identify and implement appropriate instructional strategies and sequences; and evaluate the effectiveness of instruction. Prerequisites: SPED 128, 129, 245, 380, 462, 482. Must be taken concurrently with SPED 5/444. Fall and Spring, every year.	<b>1.00</b>	
<b>SPED 527</b>	<b>Clin Prac for Low Inc Disab</b> This practicum places teacher candidates into field settings involving people with low incidence disabilities who use an individualized independence curriculum. Teacher candidates will match instruction with learner, goal, and curriculum characteristics; identify	<b>1.00</b>	
	and implement appropriate instructional strategies and sequences; and evaluate the effectiveness of instruction. Prerequisites: SPED 128, 129, 245, 380, 462, 482. Must be taken concurrently with SPED 5/446. Fall and Spring, every year.		
<b>SPED 528</b>	<b>Assistive Technology</b> Students will learn how to assess assistive technology requirements for people with disabilities, make low tech devices, and install and operate computer hardware and software applications in a laboratory experience. Prerequisites: SPED 128, 129, 245, 381, 462, 482.	<b>1.00</b>	
<b>SPED 530</b>	<b>Learning Disability</b> 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.	<b>3.00</b>	
<b>SPED 531</b>	<b>Impact of Disabling Conditions</b> 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. Prerequisite: Enrollment in Graduate Program	<b>3.00</b>	
<b>SPED 534</b>	<b>Workshop In Special Education</b> 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.	<b>3.00</b>	
<b>SPED 539</b>	<b>Curr Dev &amp; Educ Programming</b> This course 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. As needed.	<b>3.00</b>	
<b>SPED 540</b>	<b>Behavior Disorder</b> Participants engage in the study of maladaptive behavior in individuals with emphasis on current definitions, classification systems, major etiological perspectives, and contemporary interventions.	<b>3.00</b>	
<b>SPED 544</b>	<b>Meth for Ind w/ High Incidence Disabilities</b> This course is about individualizing instruction for students with mild and moderate disabilities. It involves designing basic instructional sequences, utilizing behavioral objectives, matching technology, learner and goal characteristics, identifying appropriate instructional strategies, and evaluating the effectiveness of instruction. Prerequisite: SPED 128, 129, 245, 380, 462 and 482. Must be taken concurrently with SPED 416. Fall and Spring, every year.	<b>3.00</b>	
<b>SPED 546</b>	<b>Meth for Ind Low Incidence Disabilities</b> 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. Prerequisites: SPED 128, 129, 245, 380, 462, 482. To be taken concurrently with SPED 427. Fall and Spring, every year.	<b>3.00</b>	
<b>SPED 554</b>	<b>Graduate Student Teaching in Special Education</b> This course involves observation and participation in teaching students with disabilities and in activities and in activities related to the performance of a classroom teacher's professional duties. Completion of all required courses in the certification area with a minimum grade of "C" and a cumulative QPA of 3.0, as well as the issuance of required state clearances.	<b>6.00</b>	

<b>SPED 555</b>	<b>Super for Sped</b>	<b>3.00</b>	
<b>SPED 562</b>	<b>Service Learning</b>	<b>3.00</b>	
	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.		
<b>SPED 567</b>	<b>Sem Adv App Beh Analysis</b>	<b>3.00</b>	
	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.		
<b>SPED 571</b>	<b>Comm Adj-Fut Plan St w/ Disab</b>	<b>3.00</b>	
	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. Prerequisites: REHB 565 or permission of the Instructor.		
<b>SPED 575</b>	<b>Augmentative &amp; Altern Comm</b>	<b>3.00</b>	
	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. Fall, annually.		
<b>SPED 580</b>	<b>Special Reading Instruct</b>	<b>3.00</b>	
	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.		
<b>SPED 585</b>	<b>Spec Topics In Special Educ</b>	<b>3.00</b>	
	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.		
<b>SPED 597</b>	<b>Collab/Coop Tch Lrn Outc</b>	<b>3.00</b>	
	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.		
<b>SPED 620</b>	<b>Role Development with Families</b>	<b>3.00</b>	
	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.		
<b>SPED 632</b>	<b>Policy &amp; Practice In Spec Ed</b>	<b>3.00</b>	
	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.		
<b>SPED 635</b>	<b>Advanced Methods for Persons with Autism and Severe Disabilities</b>	<b>3.00</b>	
	This course focuses on the design, implementation and evaluation of instructional interventions for persons with autism or severe disabilities.		
<b>SPED 636</b>	<b>Adv Meth for High Incid Disab</b>	<b>3.00</b>	
	Participants acquire knowledge and skills related to the design, implementation, and evaluation of instructional interventions for individuals with mild/moderate disabilities.		
<b>SPED 637</b>	<b>Sem In Single Subj Res Design</b>	<b>3.00</b>	
	This course will enable students to conduct single-case research in special education and rehabilitative science. The course provides theory and scenario-based practice with a variety of single-case and replicated single-case designs. Prerequisites: SPED 567 or equivalent		
<b>SPED 690</b>	<b>Special Projects</b>	<b>3.00</b>	
	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.		
<b>SPED 696</b>	<b>Contem Ed Pract &amp; Direct</b>	<b>3.00</b>	
	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.		
<b>SPED 700</b>	<b>Thesis</b>	<b>3.00</b>	
	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.		
<b>WGS 506</b>	<b>Gender Issues in Ed</b>	<b>3.00</b>	
	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.		

# INDEX











Academic Achievement .....	13	Mathematics Education .....	74
Academic Honesty .....	9	Nursing .....	76
Academic Policies and Procedures .....	9	Physics .....	79
Academic Requirement .....	12	Real Estate .....	79
Academic Standing .....	9	Rehabilitative Sciences.....	79
Accountancy Preparation, Professional .....	23	Science Education .....	81
Accreditation .....	iii-iv	Spanish .....	83
Add/Drop .....	11	Special Education .....	81
Admission (also see individual programs).....	4	Women and Gender Studies .....	85
Eligibility .....	4	Credit, Transfer of .....	10
International Students.....	6	Degree Programs	
Non-Degree Students .....	5	Applied Data Analytics, Online Master of Science in.....	28
Procedures .....	5	Business Administration, Master of .....	21
Advisement (also see individual programs).....	12	Education, Master of Education in .....	24
Applied Data Analytics, Online Master of Science in .....	28	Library Science, Master of Science in.....	30
Applied History, Master of Arts in.....	32	Mass Media Arts and Journalism, Master of Science in ....	35
Assistantships (also see individual programs) .....	18	Nursing, Master of Science in .....	38
Billing and Financial Aid .....	14	Nursing Practice, Doctor of.....	41
Business Administration, Master of.....	21	Rehabilitative Sciences, Online Master of Science in .....	48
Professional Accountancy Preparation.....	23	Special Education, Graduate Studies in .....	44
Calendar, Academic .....	ii	Speech Language Pathology, Master of Science in.....	50
Carlson Library .....	2, 18	Directory Information .....	9
Career and Professional Development, Center for .....	20	Disability, Nondiscrimination on Basis of .....	13
Campuses .....	2, 3	Dismissal .....	10
Comprehensive Examinations (see individual programs)		Distance Education .....	33
Core Values, Clarion University .....	1	Drop/Add .....	11
Course Descriptions		Early Childhood Certification Program, Graduate.....	27
Accounting .....	53	Early Childhood Concentration .....	25
Athletic Training Sports and Wellness .....	54	Education, Master of Education degree in.....	24
Biochemistry .....	54	Early Childhood Concentration.....	25
Biology .....	55	Graduate Early Childhood Certification Program .....	27
Business Administration.....	57	Mathematics Education Concentration .....	25
Chemistry .....	58	Reading Specialist Certification .....	26
Communication Studies .....	58	Science Education Concentration.....	26
Communication Sciences and Disorders .....	60	Technology Concentration .....	27
Computer Information Sciences .....	58	Employment.....	16
Early Childhood .....	62	Enrollment.....	19, 14
Earth Sciences .....	68	Faculty Title IX Reporting Requirement .....	2
Economics .....	62	Family Nurse Practitioner Second Master's Degree.....	40
Education.....	63	Family Nurse Practitioner Post-Master's Certificate .....	40
Educational Administration.....	67	Fees ( clarion.edu/tuition-and-financial-aid)	
English.....	67	FERPA .....	7
Environment .....	68	Financial Services, Student .....	14
Finance .....	69	Grading System.....	12
French.....	70	Grade Release Policy .....	7
Geography .....	70	Graduate Assistantships (see individual programs)	
History .....	71	Graduation and Degree Conferral Policy.....	10
Library Science.....	71	Graduate Credit Load.....	11
Management .....	75	Grants .....	14
Marketing .....	76	Health Insurance .....	16

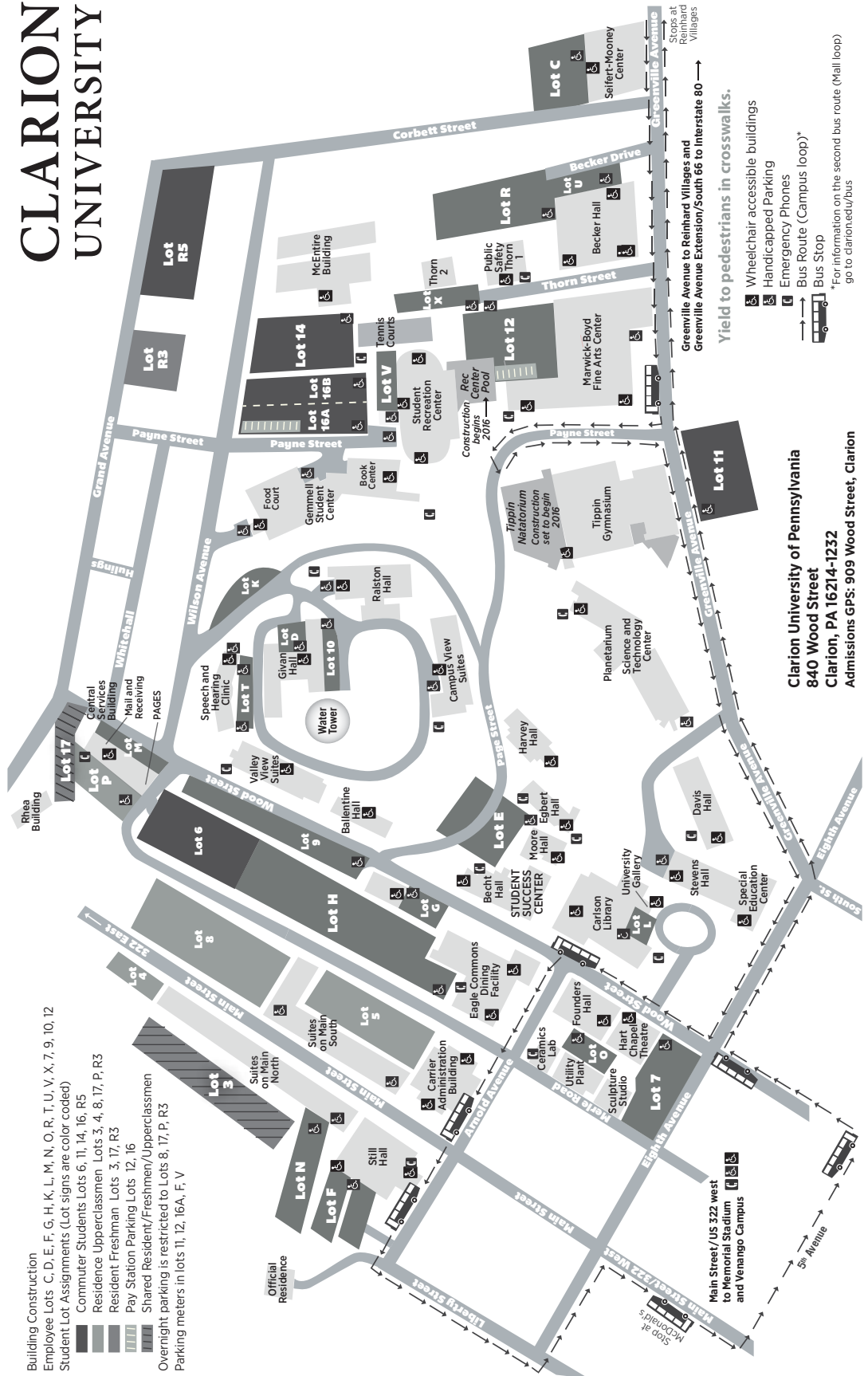


Health Services .....	16	Nursing Admission Application .....	6
Housing .....	17	Online Programs .....	3, 13
In Progress Grades .....	9	Parking and Automobile Regulations .....	20
Incomplete Grades .....	9	Placement (see individual programs)	
Insurance, Health .....	19	Policies and Procedures, Academic .....	9
International Students .....	6, 19	Probation .....	7
Internships (See individual programs)		Privacy Act .....	7
Judicial and Mediation Services .....	20	Public Relations, Online Graduate Certificate in .....	37
Juris Doctor Program .....	32	Reading Specialist Certification .....	26
Health Center .....	19	Records, Student .....	7
Libraries, University .....	18	Refunds .....	14
Library Science, Master of Science in .....	30	Rehabilitative Sciences, Master of Science degree in .....	48
Certificate of Advanced Studies .....	32	Research, Theses and Comprehensive Exams .....	12
Current Studies in Librarianship Forum .....	33	Residency .....	10
Distance Education .....	33	Scholarships (also see individual programs) .....	17
Information Access concentration .....	32	School of Media Library concentration .....	32
Juris Doctor Program .....	32	Science Education Concentration .....	2
Local and Archival Studies concentration .....	32	Simultaneous Degree Completion .....	11
Management of Information Access concentration .....	32	Special Education, Master of Education with .....	44
Master of Arts in Applied History .....	32	Special Education, Master of Science in .....	46
School of Media Library concentration .....	32	Speech Language Pathology, Master of Science in .....	50
Loans, Federal and Private .....	14	Student Support Services .....	18
Mass Media Arts and Journalism, Master of Science in .....	30	Suhr Library .....	18
Online Graduate Certificate in Public Relations .....	37	Technology Concentration .....	27
Mathematics Education Concentration .....	25	Test of English as a Foreign Language (TOEFL) .....	7
Media Library concentration, School of .....	32	Theses (also see individual program) .....	13
Mission Statements .....	1	Title IX Reporting Requirements, Faculty .....	2
Nondiscrimination on Basis of Disability .....	3	Transfer Credit (also see individual programs) .....	10
Nondiscrimination Statement .....	1	Venango Campus .....	3, 90
Nursing Practice, Doctor of .....	41	Veterans Benefits .....	16
Nursing, Master of Science degree in .....	38	Withdrawals, Course/University .....	11
Family Nurse Practitioner Second Master's Degree .....	40	Work-Study Programs, Federal .....	16
Family Nurse Practitioner Post-Master's Certificate .....	40		

# CLARION UNIVERSITY

Parking lot numbers are scheduled to change. Please go to [clarion.edu/campusmap](http://clarion.edu/campusmap) for the current version of the map.

-  Building Construction
-  Employee Lots C, D, E, F, G, H, K, L, M, N, O, R, T, U, V, X, 7, 9, 10, 12
-  Student Lot Assignments (Lot signs are color coded)
-  Commuter Students Lots 6, 11, 14, 16, R5
-  Residence Upperclassmen Lots 3, 4, 8, 17, P, R3
-  Resident Freshman Lots 3, 17, R3
-  Pay Station Parking Lots 12, 16
-  Shared Resident/Freshmen/Upperclassmen
-  Overnight parking is restricted to Lots 8, 17, P, R3
-  Parking meters in lots 11, 12, 16A, F, V



**Clarion University of Pennsylvania**  
 840 Wood Street  
 Clarion, PA 16214-1232  
 Admissions GPS: 909 Wood Street, Clarion

## CLARION CAMPUS FACILITIES

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

**BALLENTINE HALL**, located on Wood Street.

**BECHT HALL**, located on Wood Street, houses Residence Life, Judicial Affairs, Counseling, Health & Wellness Services.

**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 living room areas in each unit (two to four students per unit).

**CARLSON LIBRARY** is on the central campus just off Wood Street. It houses the Clarion University Art Gallery, the Library Science Department, the library faculty and staff, and the university's collection of resource documents.

**CARRIER ADMINISTRATION BUILDING**, at Main Street and Arnold Avenue, houses offices for the president and staff, the provost and academic vice president and staff, the vice president for finance and administration and staff; Office of the Registrar, Business Office, Human Resources, Social Equity, Student Accounts, Graduate Studies and Student Financial Services, vice president for student affairs and staff.

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

**CENTRAL SERVICES**, located on Wood Street, houses publications/printing offices and mailroom operations.

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

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

**EGBERT HALL** is on the central campus behind Carlson Library.

**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.

**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, food court, coffee shop, meeting rooms and other recreation areas for students. There is also a multi-purpose room.

**GIVAN HALL**, situated on the hill along with the Suites, and Ralston Hall.

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

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

**JOSEPH P. GRUNENWALD CENTER FOR SCIENCE AND TECHNOLOGY**, located on central campus west of Harvey Hall and houses offices, classrooms, and labs for AGES, Biology, Chemistry and Mathematics, as well as the planetarium.

**KEELING HEALTH SERVICES CENTER**, off Wilson Avenue behind Givan Hall. 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, Theatre, and Communication departments.

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

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

**NORTH MAIN SUITES** on Main Street next to Still Hall (two students per unit with private or shared bedrooms).

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

**RALSTON HALL** is situated on the hill above Gemmell Student Complex.

**RECREATION CENTER**, is located on Payne Street. It contains three multipurpose courts for basketball, volleyball and tennis, and includes a 4-lane track, fitness areas, equipment checkout and a climbing wall.

**SOUTH MAIN SUITES** on Main Street next to Carrier (two students per unit with private or shared bedrooms).

**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 (Thorn 1) and ROTC and Grounds (Thorn 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.

**UNIVERSITY 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 year.

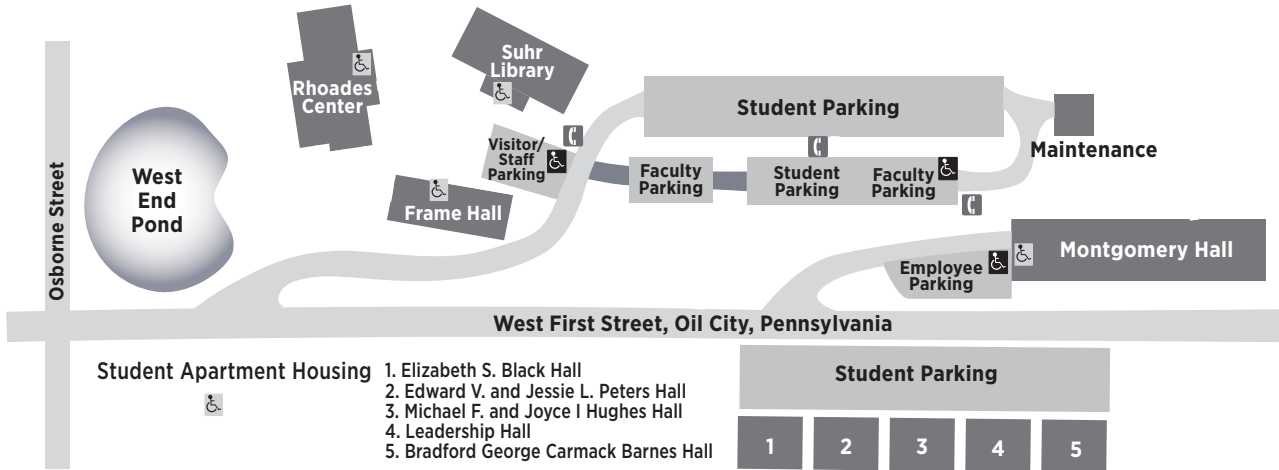
**VALLEY VIEW SUITES** is located on Wood Street and offers living room areas in each unit (two to four students per unit).

**WILKINSON RESIDENCE HALL** houses 450 students on the Main Street area of the campus.

**Venango College  
of Clarion University**  
1801 West First Street  
Oil City, PA 16301-3297

-  Handicap Parking
-  Wheelchair Accessible Building
-  Emergency Phones

**CLARION  
UNIVERSITY**  
VENANGO COLLEGE



## 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 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** 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, career services, and faculty offices.

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



**THIS PAGE WAS  
LEFT BLANK  
INTENTIONALLY**

CLARION UNIVERSITY

2015-2016

GRADUATE CATALOG

# CLARION UNIVERSITY

840 Wood Street, Clarion, PA 16214-1232

[www.clarion.edu](http://www.clarion.edu)

A member of the Pennsylvania State System of Higher Education

**BOUND PRINTED MATTER**