



Indiana University of Pennsylvania
SCHOOL OF GRADUATE STUDIES AND RESEARCH

2018-2019 Graduate Catalog

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The University

A University Education

Through undergraduate and graduate programs, IUP serves students from across the nation and around the world by introducing them to and sustaining them in a culture of high aspiration and achievement so they may lead productive and meaningful lives. Singly and through collaboration within Pennsylvania's State System of Higher Education, with other educational institutions, and with business, government, human services, and professional organizations, IUP contributes to the economic and cultural strength of the region, the commonwealth, and the nation through education, scholarship, and service.

Vision for IUP's Future

Indiana University of Pennsylvania is a community where teaching, research, and service empower students to become innovative leaders while enhancing communities throughout the world. Remaining true to its traditions, IUP assesses society's needs and opportunities and meets them.

Students are hardworking, ready to learn, and come from diverse cultures, places, and backgrounds. Energetic, dedicated, and diverse staff and faculty members welcome them to a personal, vibrant college home. Students participate in many intentional and interconnected learning experiences in their studies, in their lives, and in the world.

Professors are active scholars and teachers in their disciplines who work together to expand their impact. They engage students in carefully designed open-ended, hands-on experiences to reinforce and enrich what students learn in the classroom. Professors use technology to enhance student learning and augment the face-to-face and peer-learning experiences that are the foundation of excellent education.

Alumni say their student experience was the best preparation for work and life. They continue to find joy in the bonds they built as students and the new connections they make with faculty and staff members, students, and other alumni. They are proud, and they choose to invest in IUP's future.

IUP Values

- Demonstrating an excellent return on educational investment
- Knowing students as individuals who work closely with faculty and staff members
- Responding to the needs of students and society with a range of innovative programs and scholarship
- Employing evidence in decision making and in demonstrating results
- Drawing on IUP's tradition in Indiana and western Pennsylvania to serve students worldwide
- Enjoying historic, inspirational, and functional campuses and facilities
- Using technology to reach place-committed students and enhance learning for all
- Celebrating engaged, successful alumni

Mission Statement

IUP is a leading public, doctoral/research university, strongly committed to undergraduate and graduate instruction, scholarship, and public service.

IUP engages students as learners and leaders in an intellectually challenging, culturally enriched, and contemporarily diverse environment.

Inspired by a dedicated faculty and staff, students become productive national and world citizens who exceed expectations personally and professionally.

For more information about IUP's core values and strategic goals, visit the website www.iup.edu/strategic-planning.

History of the University

IUP has witnessed a history rich in accomplishment. Since 1875, when it served only 225 students in a single building, it has experienced continuous growth, becoming one of Pennsylvania's largest universities. The fall 2017 enrollment was 12,316, with students from 48 states/territories and more than 50 countries

The first building, named John Sutton Hall in honor of the first president of the Board of Trustees, was opened for students on May 17, 1875.

In April 1920, control and ownership of the school passed to the Commonwealth of Pennsylvania. In May 1927, by authority of the General Assembly, the State Normal School became a college, with the right to grant degrees. The name was then changed to the State Teachers College at Indiana, Pennsylvania. In 1959, the legislature approved a change of name to Indiana State College; in the 1960s there followed a rapid growth in the liberal arts program. In December 1965, Indiana was redesignated Indiana University of Pennsylvania and given the authority to expand its curriculum and to grant degrees at the master's level. In 1969, the first doctoral program was initiated.

Current academic offerings include more than 140 undergraduate programs with a variety of internship and study abroad programs, 55 master's degree programs, and 14 doctoral programs. Unusual opportunities for research at all levels and the Cook Honors College provide special challenges for academic growth. The variety and quality of instruction are characteristic of a big university, yet at IUP, close, one-to-one-relationships develop within the teaching framework, and a strong sense of community prevails.

Points of Pride

There are many good reasons why IUP is consistently ranked among the best institutions in the region by a wide variety of sources, including the Princeton Review's *Best Colleges* publications; Donald Asher's *Cool Colleges: For the Hyper-Intelligent, Self-Directed, Late Blooming, and Just Plain Different*; Kiplinger's *Personal Finance Magazine*; Arco's *Dollarwise Guide to American Colleges*; Barron's *Best Buys in College Education*; *New York Times*; *Money magazine*; and *US News and World Report*. Here are some of those reasons:

- **Breadth of high-quality programs:** Undergraduates can choose from more than 140 programs. IUP also offers more than 60 graduate programs, including 14 doctoral programs. Students can challenge themselves with honors programs in almost every major or attend the nationally renowned Cook Honors College.
- **Strong graduate programs:** Graduate students at IUP gain the advantages of a nationally recognized university known for its commitment to high-quality research. They work with distinguished faculty members who regularly secure prestigious research grants and make noteworthy contributions to their discipline's body of knowledge.
- **Faculty:** IUP students enjoy an 17-to-1 student/faculty ratio. Nearly all classes are taught by fully qualified faculty scholars. Some faculty members have won Fulbright Teacher Exchange awards to study/research in other countries. Faculty research wins sponsorship by major institutions such as the National Science Foundation, NASA, Centers for Disease Control and Prevention, and US Department of Education.
- **Campus and location:** The main IUP campus is in the heart of Indiana County, close to recreation of all kinds and only an hour away from Pittsburgh. IUP's location puts students in a safe, friendly, small-town environment within easy reach of the opportunities a big city offers.
- **Hands-on learning:** An IUP education is rigorous and research based. Every IUP program endeavors to prepare students for the real-world challenges they will face after graduation. Students engage in applied learning through laboratory work, internships, and exchange programs.
- **Transfer-friendly:** Students who want to transfer to IUP from another academic institution will find an admissions staff dedicated to their success.
- **Distance learning:** Undergraduate and graduate courses are available to students who may have work or family schedules that conflict with on-campus classes.
- **A diverse, vibrant, welcoming community:** IUP attracts and sponsors a wide variety of local, national, and international cultural events that make both the campus and the surrounding town a vibrant place for the arts as well as for intellectual pursuits. In addition, more than 250 student clubs and organizations thrive on campus, ensuring that the IUP experience is as much about shared activities and memories outside the classroom as it is about collaboration and dialogue within.
- **Division II athletics:** IUP competes in the Pennsylvania State Athletic Conference and is an NCAA Division II member. The university sponsors eight varsity sports for men and 11 for women, with scholarships available for all of them. IUP students also get involved in a variety of club and intramural sports.
- **Excellent value:** All of the above add up to one thing: value. That's why IUP is nationally recognized for offering an education of real value. In addition to keeping tuition costs competitive, IUP disburses substantial financial aid in the form of scholarships, grants, work-study programs, and low-interest loans. In fact, about 82 percent of IUP undergraduate students receive financial assistance in one form or another.

University Governance

Indiana University of Pennsylvania is one of 14 members of the State System of Higher Education in Pennsylvania. Oversight of the System is vested in the Board of Governors, the members of which are appointed by the governor. Each university has its own Council of Trustees, responsible for financial oversight and ensuring compliance of university policies with state law. Responsibility for the day-to-day operations is entrusted to the university president, who is the chief executive officer.

Because of the complexity of the university, the president relies on the University Senate to develop and approve curricula and to advise the president on setting policies that affect and shape the working and learning environment at IUP. The University Senate is composed of faculty members, students, and administrators who are elected and appointed by their peers.

Many of the important policies governing the working and learning environment, such as the policy on sexual harassment and sexual violence, the academic integrity policy, and the policy on nondiscrimination, are given in this catalog or the student handbook (*The Source: A Student Policy Guide*) and are also available at www.iup.edu. To ensure a nurturing environment where all faculty members, students, and administrators can work together in harmony, it is essential that all members of the university be familiar with these policies, as they set the expectations for civil behavior and academic conduct.

Accreditation

IUP is a state-owned institution for higher education and a member of Pennsylvania's State System of Higher Education. It holds university-wide regional accreditation through the Middle States Commission on Higher Education, 3624 Market Street, Philadelphia, PA 19104, telephone: 267- 284-5000, website: www.msche.org.

In addition, undergraduate programs at IUP have earned specialized accreditation from the following organizations:

- Accreditation Commission for Programs in Hospitality Administration
- Accreditation Council for Education in Nutrition and Dietetics
- American Association for Health Education
- American Council on the Teaching of Foreign Languages
- American Culinary Federation Educational Foundation
- American Dietetic Association
- American Psychological Association
- American Speech-Language-Hearing Association
- Applied and Natural Science Accreditation Commission of ABET
- Association to Advance Collegiate Schools of Business
- Association for Middle Level Education
- Commission on Accreditation of Allied Health Education and Programs
- Commission on Accreditation for Respiratory Care
- Commission on Accreditation of Athletic Training Education
- Commission on Collegiate Nursing Education
- Computing Accreditation Commission (CAC) of ABET
- Council for Exceptional Children
- Council for Accreditation of Counseling and Related Educational Programs
- Educational Leadership Constituent Council
- International Reading Association
- National Association for Sport and Physical Education
- National Association of Schools of Art and Design
- National Association of Schools of Music
- National Association of School Psychologists
- National Association of Teachers of English
- National Association of Schools of Theatre
- National Science Teachers Association

- National Council for Accreditations of Teacher Education (NCATE)
- National Council for Social Sciences
- National Council of Teachers of Mathematics
- Pennsylvania Department of Education-Vocational Division
- Planning Accreditation Board See the website www.iup.edu/academicaffairs/resources for the most current listing.

Indiana, the County and the Town

Indiana County was formed by act of the state legislature in 1803 and was fully organized in 1806. George Clymer, of Philadelphia, a signer of the Declaration of Independence, owned more than 3,000 acres in the area and presented 250 acres to the new county for a county seat. The town of Indiana was officially founded in 1816.

The county's first major industry was the manufacture of salt, which began in 1813 about two miles above the town of Saltsburg. As early as 1797, bituminous coal was dug from exposed outcroppings. Mining soon rivaled agriculture as the backbone of the county's economy. Its influence gradually diminished, though, and today IUP is the county's largest employer. Indiana County now thrives with an economic base combining education, agriculture, energy production, and commerce into an outstanding quality of life for its nearly 90,000 residents.

Indiana has become known as the birthplace of film star Jimmy Stewart and as the Christmas Tree Capital of the World. Visitors and locals alike can relive Indiana County's past by visiting its parks, covered bridges, fairs, and even the largest Amish settlement in western Pennsylvania. As one of nine counties represented in America's Industrial Heritage Project, Indiana County has a number of historical sites that are part of the project's Path of Progress. The project's archives are housed in the Special Collections section of IUP's Stapleton Library.

Alumni

With an alumni base that comprises more than 140,000 individuals, the university has come to rely on the support of its alumni in a variety of areas. These include career networking, student recruitment, speaking to classes, and mentoring, as well as service on the Alumni Association Board of Directors and a number of advisory committees.

Graduates automatically become members of the Alumni Association. They are encouraged to continue their connection with IUP through the Alumni Association and online services at www.alumni.iup.edu and through periodicals like IUP Magazine.

Buildings and Grounds

In 1875, the main campus consisted of 12 acres and one building, John Sutton Hall. With the addition in 1995 of 137 acres of undeveloped land, the main campus now comprises 374 acres and 65 major buildings with over 4 million square feet of usable space. Two of the buildings, Breezedale and John Sutton Hall, have been entered in the Register of Historic Places.

IUP opened its \$30 million Humanities and Social Sciences Building in spring 2016, offering spaces for a variety of learning, both formal and informal. In fall 2017, IUP completed a \$37 million renovation of its campus dining program, opening the third of three new facilities. IUP

began the spring 2018 semester with the opening of a new Center for Multicultural Student Leadership and Engagement, which joins four other offices within the Division of Student Affairs. A new science building is in the planning stages with construction to begin 2020.

IUP also owns and operates four residential and educational facilities at the Punxsutawney Regional Campus in Jefferson County, where approximately eight acres provide the real estate for the IUP Living and Learning Center and the Academy of Culinary Arts.

The IUP at Northpointe Regional Campus in Armstrong County, formally called the John P. Murtha Center for Education and Workforce Development, provides facilities for training along with various other undergraduate- and graduate-level courses. Northpointe is a commuter-only campus.

The IUP Pittsburgh East Professional Center is an education center located in Wilkins Township, Pennsylvania, and provides various level programs and degree offerings for traditional and nontraditional students.

Computing Services

All students have access to an extensive set of web-based services, including class registration, schedule planning, and records management. Students are provided with computing accounts for e-mail and network access. These computing accounts provide personal disk space for e-mail, projects, and web pages. More information about technology resources available to IUP students can be found at www.iup.edu/itsupportcenter/student. Technical support is available at the IT Support Center via website www.iup.edu/ITSupportCenter, via e-mail to it-support-center@iup.edu, or emergency issues via telephone at 724-357-4000.

The IT Support Center coordinates the operation of several fully equipped and Internet-connected University Public Computer Labs. These computer labs are available for student use and contain a wide variety of software. Some computer labs contain specialized software related to the college or department hosting the lab. Several departments maintain computing facilities that are of a focused nature intended to support specific programs. More information on the public computer labs can be found at www.iup.edu/itsupportcenter/labs.

Connectivity for student computers (wired) in the residence halls is provided through the Office of Housing, Residential Living, and Dining. In addition, wireless connectivity is prominent at IUP. The IUP Wireless Network is available in all classroom buildings, all suite-style residence halls, Stapleton Library, the Hadley Union Building, and the Oak Grove.

IT Services' enduring mission is to provide a modern, mainstream IT environment to the university community in a manner that is both flexible and versatile while delivering services in a timely, yet cost-effective manner. Guidance in this area is provided by each university division vice president, the Academic Computing and Policy Advisory Committee (ACPAC), and the Technology Operation Team (TOT).

IT Support Center

Website: www.iup.edu/itsupportcenter; **E-mail:** it-support-center@iup.edu

The IT Support Center provides proactive and reactive measures to assist students of IUP with orientation to and use of computers and other technology at IUP. One of the goals of the IT Support Center is to provide students with a place to go for advice and assistance with issues related to computers and other technology on the campuses of IUP.

The center can address student questions concerning e-mail, web pages, computer account usage, policies, and network services. Students may contact the support center via *ihelp* at <https://ihelp.iup.edu> or, for emergency issues, via phone (724-357-4000). The website (above) includes several sections that might help students to answer their own questions. Students are also welcome to visit the IT Support Center at Delaney Hall, Suite G35, for personal assistance with their computing problems.

The IUP Libraries

Patrick J. Stapleton Jr. Library, the central library for IUP, was completed and dedicated in 1981. It adjoins Rhodes R. Stabley Library which results in a combined structure of 156,000 square feet. The Orendorff Music Library, located in Cogswell Hall, and the regional campus libraries at Northpointe and Punxsutawney are the other components of the IUP Libraries system. Fourteen library faculty members, 14 staff members, and more than 150 students are employed in the Libraries division of the university.

The IUP Libraries serve the academic and research needs of students and faculty. Library collections and holdings include 526,098 print volumes, 279,110 electronic books, 263 print periodical subscriptions, and over 80,000 full-text electronic professional journals. The library subscribes to 359 full-text electronic databases and has a collection of 146,806 microforms. The Libraries' supplement its holdings via Interlibrary loans services.

The Orendorff Music Library, located in Cogswell Hall, contains approximately 12,000 books, 30,000 scores, 10,000 vinyl recordings, and 5,000 CDs. Undergraduate students may borrow non-reference music library materials.

For information about Library hours, please access our website at www.iup.edu/library.

IUP Centers and Institutes

The School of Graduate Studies and Research provides coordinating and support functions for campus-based centers and institutes through the Office of the Associate Dean for Research. Each center or institute is unique in its focus and is created to meet a specifically identified need. Centers and institutes provide an opportunity for faculty members to utilize their expertise through consultation, technical assistance, and research-related activities. Centers and institutes provide excellent opportunities for students to learn, to demonstrate their knowledge and skills, and to become involved in meaningful projects in the community. Centers and institutes strengthen the research and public service missions of the university and, therefore, enhance the quality of education.

A current listing of centers and institutes at IUP follows.

- Administration and Leadership Studies Research and Training Center
- American Language Institute

- Archaeological Services
- Center for Applied Psychology
- Center for Career and Technical Personnel Preparation
- Center for Creativity and Change
- Center for Digital Humanities and Culture
- Center for Family Business
- Center for Film Studies
- Center for Health Promotion and Cardiac Disease Prevention
- Center for Media Production and Research
- Center for Northern Appalachian Studies
- Center for Research in Criminology
- Center for Statistics Education in Pennsylvania
- Center for Teaching Excellence
- Child Study Center
- Criminal Justice Training Center
- Excellence in Entrepreneurial Leadership Center
- First Commonwealth Center for Economic Education
- Frederick Douglass Institute
- Government Contracting Assistance Program
- Institute for Cyber Security
- Institute for Mine Mapping, Archival Procedures, and Safety
- Institute for Rural Health and Safety
- Intercollegiate Athletic Institute for Sports Camps
- IUP Community Music School
- Literacy Center
- Management Services Group
- Mid-Atlantic Research and Training Institute for Community and Behavioral Health
- Pennsylvania/OSHA Consultation Program
- Small Business Development Center
- Small Business Incubator
- Small Business Institute
- Software Development Center
- Speech, Language, and Hearing Clinic
- The Wood Center at IUP

Parking

Website: www.iup.edu/parking; **E-mail:** parking-services@iup.edu

Three types of parking permits are available to students: (1) Commuter permits are allocated to individuals traveling from outside the set boundaries to class each day, (2) Resident permits are designated for graduate students living on campus, and (3) Robertshaw permits are available for a fee for long-term parking by undergraduate students living in university-owned residence halls. Permits are available at the MyIUP website. Parking regulations and maps can be viewed online at www.iup.edu/parking.

The University Parking and Visitor Center is open Monday through Friday from 7:00 a.m. to 3:00 p.m. and is located at 850 Maple Street, University Towers, Indiana, PA 15705. Questions should be addressed to the Parking Services Department at 724-357-8748 (VSIT).

University Organization

The university's administration comprises of seven divisions: Academic Affairs, Administration and Finance, Enrollment Management and Communications, Student Affairs, Marketing and Communications, and University Advancement. Information about Academic Affairs, Enrollment Management and Student Affairs appears in this catalog's sections called Academic Affairs Division Areas or Student Programs and Services. Information about the other three divisions follows.

Administration and Finance Division

The Division of Administration and Finance provides internal and external constituents of the university with the highest-quality services in the most supportive and cost-effective manner. In contributing toward the fulfillment of IUP's mission of teaching, research, and public service, the Administration and Finance Division is responsible for the development, stewardship, enhancement, integrity, and stability of the university's fiscal, human, and physical resources.

Major responsibilities of the division are organized and operated from the departments of Facilities Management, Finance, Human Resources, and Administration, Budget, Procurement Services and Central Stores, Public Safety and University Police.

Marketing and Communications Division

IUP's Marketing and Communications Division has a simple goal – to shine a light on the quality and scope of IUP's educational experience to both internal and external audiences. We tell the stories of our faculty and staff, as well as the achievements of our students and alumni, to celebrate their success, promote the value of an IUP education, and enhance the overall reputation of the university.

We work collaboratively with the university community to develop content and deliver a unified story across various platforms: the IUP website, social, digital, video, print, and various advertising and news outlets. The division includes professionals in marketing, communications, brand management, video, photography, design, and media relations. These areas are critical in crafting and communicating IUP's overall mission and vision to a variety of constituencies.

University Advancement Division

The University Advancement division engages internal and external constituencies in support of the mission and vision of IUP. The division champions a culture of philanthropy that results in volunteerism, advocacy, and private gifts. The University Advancement division accomplishes this mission through the following functional areas: Vice President, Alumni Relations, Development, Advancement Services, and Constituent and Donor Relations. The division works closely with the Foundation for IUP and the Alumni Association, both private non-profit 501 (c) (3) affiliated organizations established to support IUP. These organizations are governed by volunteer boards of directors with a specific mission overseeing operations with fiduciary responsibility for programs and assets.

Admissions and Registration

Website: www.iup.edu/admissions/graduate/

Graduation Residency Requirements

Graduate Students

1. For master's students, at least 2/3 of the credits meeting program requirements must be taken from the University offering the degree.
2. Doctoral residency requirements are determined at the program level

Note that these set the minimum number of credits that must be taken “in residence” and that universities can limit the number of hours that will be allowed to transfer into a graduate program.

Active-duty service members who are graduate students will be handled on a case by case basis.

Exceptions are to be approved by the office of the Chancellor's Division of Academic and Student Affairs.

Office of Extended Studies

Website: www.iup.edu/extended

The Office of Extended Studies does the following:

- Engages the local and regional community to provide adult noncredit education, training, and skill development courses.
- IUP's for-credit classes
- Manage internship, externship, and clinical experience agreements on behalf of Academic Affairs.
- Maintains authorization to offer online programs and field experiences in other states and assure compliance with related regulations.
- Provides qualified employers with reimbursement for training new and existing employees, through the Workforce and Economic Development Network of Pennsylvania program. The office is located in the R&P Building, near the tennis courts. It can be reached by e-mail at ce-info@iup.edu or by phone at 724-357-2292.

The Summer and Winter Sessions

The Summer Sessions schedule can be viewed at the website www.iup.edu/summer. The Winter Session schedule can be viewed at the website www.iup.edu/winter.

Finances

Institutional Fees*

*The university reserves the right to change its fees without notice. The fee schedule is subject to change; these figures are to be considered simply as an estimate. The most current fee schedule can be obtained by writing to the IUP Office of Admissions, by phoning 724-357-2230, or by visiting the website www.iup.edu/bursar.

Tuition and Fees

Tuition covers the keeping of student records, use of the library, student welfare, and laboratory facilities. The most current fee schedule for in-state and out-of-state students can be obtained by visiting the website www.iup.edu/bursar. An in-state student is one who has been domiciled in Pennsylvania for at least one year preceding attendance at any institution of higher education in the state of Pennsylvania. A minor is presumed to have the domicile of his/ her parents or legal guardian. Students who have any questions concerning their domicile should read the official text of the rules, as published in Volume 22, Pennsylvania Code, Section 507.1 through 507.11.

Financial Aid

Website: www.iup.edu/financialaid/

For Title IV Financial Aid related Academic policies, please see the Academic Policies section or the Financial Aid website.

Title IV Satisfactory Academic Progress Policy

“In order to receive Student Financial Aid under the programs authorized by Title IV of the Higher Education Act, as amended, a student must be maintaining satisfactory academic progress in the course of study that he/she is pursuing.” (Federal Register/Volume 48, No. 195/Thursday, October 6, 1983.) Students must be in compliance with both the university’s Academic Standards Policy and the Financial Aid Sufficient Progress Policy (SAP) to demonstrate satisfactory progress.

These Title IV programs include Federal Pell Grant, Federal Work Study Program, Federal Supplemental Educational Opportunity Grant (FSEOG), Federal Perkins Loan, Federal Direct Loans, and Federal Parent PLUS Loan.

A student who is meets the university’s Academic Standards Policy, but who does not meet the Financial Aid SAP qualitative and quantitative standards, may continue in university registration, but will not be eligible to participate in the Federal Title IV aid programs. This happens because the Financial Aid SAP Policy is stricter than the university’s Academic Standards Policy.

A full statement of requirements for Satisfactory Academic Progress for Title IV Federal Student Aid is available at the Financial Aid office and on the website.

Title IV Financial Aid Satisfactory Academic Progress Policy

The Financial Aid Sufficient Progress Policy applies to undergraduate and graduate students enrolled in the university.

A. Financial Aid Satisfactory Academic Progress (SAP): To be considered in good financial aid SAP standing, graduate students must maintain a 3.0 CGPA, must successfully complete (pass) at least 67 percent of the cumulative number of their registered credits at IUP, and must complete their degree requirements within an established time frame of no longer than 150 percent of the published length of the program.

Students' SAP is measured for each academic year at the end of the spring semester (corresponding with the end of the spring payment period), after grade processing has been completed. This measurement determines if students have met the required CGPA, have passed a sufficient percentage of credits, and time frame completion in order to be eligible for Title IV funding in future terms.

Students are notified of their financial aid suspension status via email and USPS direct mail when a completed Free Application for Federal Student Aid (FAFSA) for the upcoming academic year is on file in the Financial Aid office. Students are also able to review their SAP status on their MyIUP account.

B. Financial Aid Suspension: When students who do not meet CGPA and have not successfully passed the sufficient number of credits, all Title IV aid for that student will be suspended beginning with the next semester of attendance.

A student who is in this financial aid suspension status, however, will be reviewed at the end of the next semester of attendance to evaluate if the percent of progress and CGPA are met. If the percent of progress and CPGA are achieved, then the student's Title IV financial aid suspension will be rescinded beginning with the next semester of enrollment.

C. Time Frame for Degree Completion: In addition to meeting the 67 percent of progress and CGPA requirements, students must complete their degree requirements within an established time frame of no longer than 150 percent of the published length of the program. Since enrollment status may vary from term to term, the maximum period for degree completion is measured in terms of credits attempted at IUP plus any transfer credits. Part-time and full-time students are treated equally under this policy. For example, undergraduates should complete the requirements for a bachelor's degree at the point of having 180 registered credits at IUP (150 percent of the published length of the program).

D. Appeal Process: Students who have special circumstances, beyond their control (such as medical emergencies or death of a family member), which cause them to not make SAP, may submit a written appeal to the Financial Aid Appeals Committee for consideration of reinstatement of Title IV aid eligibility. However, a special circumstance does not guarantee an exception to the financial aid SAP regulations. Students who exceed the 150 percent credit guidelines due to change of major or double majors may also submit a written appeal.

The written appeal must specifically outline the reason(s) for the progress deficiency *and* identify what has changed to allow the student to make SAP by the next evaluation. The appeal

must contain sufficient documentation to substantiate the reason cited for lack of progress for instance, supporting documentation from a healthcare provider that clarifies the student's health situation, an obituary, and/or letters of support from relevant professional individuals (not related to the student) are all acceptable forms of documentation. Letters from third party individuals must be on letterhead and contain a hand-written signature. Electronic signatures are not accepted.

For students who do not appeal or who are denied an appeal for a semester, an appeal for reinstatement of Title IV aid for a subsequent semester will be accepted for review.

After reviewing the written appeal of a student in financial aid suspension, the Financial Aid Appeals Committee may decide to reinstate Title IV financial aid eligibility for specific periods of the next financial aid award year.

E. Reinstatement of Title IV Aid Eligibility: In order for students to reestablish eligibility to receive Title IV financial aid, one of the following must occur:

1. Students must meet the minimum requirements for SAP (at least 67 percent cumulative percent of progress, meet the CGPA requirement (2.0 UG or 3.0 GR), and the time frame for degree completion).

OR

2. The Financial Aid Appeals Committee must approve the student's written appeal (based on documented circumstances).

F. Treatment of Transfer Credits, Audits, Incompletes, and Other Grades:

1. **Transfer Credits:** All transfer credits that students transfer into IUP are taken into consideration as part of their attempted and passed credits for purposes of measuring SAP percent of progress as well as time frame for degree completion.

2. **Audits, "S," and "U" Grades:** Because course audits, "S," and "U" grades carry no credits, they are not reviewed or counted for SAP progress purposes.

3. **Incompletes:** Designations of "I," "L," "R," and "*" are treated as credits attempted/zero credits passed, thus have no effect on CGPA. However, these designations are treated as non-completed (attempted) credits and have an impact in the calculation of the percent of progress measure and time frame for degree completion. (Note: The "*" is an administrative symbol indicating that a grade was not submitted at the time of grade processing.)

4. **"F" Repeat with Replacement:** An "F" repeat with replacement is treated as credits attempted/credits passed/with the quality points (QP) of the new grade replacing the 0.00 QP of the original "F" grade. An "F" repeat has a positive effect on the CGPA, but represents an additional number of credits attempted in regard to the percent of progress and time frame for degree completion measurements.

5. **"D" Repeat with Replacement:** Repeated classes that are "D" replacements to a student's record are treated as credits attempted/zero credits passed/with the quality points (QP) of the new grade replacing the 1.00 QP of the "D" grade. A "D" repeat with replacement may improve a student's CGPA, but represents an additional number of credits attempted in regard to the percent of progress and time frame for degree completion measurements. NOTE: No "D" grade is recognized in IUP graduate work. See Grading System.

6. **Repeats with Averaging:** Courses that are repeated with averaging count as credits attempted/credits passed with the quality points for the class averaged into the CGPA. The maximum time frame for degree completion may be impacted by repeat with averaging classes. NOTE: Graduate students are limited to one course C/F repeat. See Course Repeat Policy.
7. **Withdrawals:** Designations of “N,” “W,” “Q,” “WP,” or “WF” are treated as registered credits/zero credits passed/no effect on CGPA. Any type of “W” designation is treated as noncompleted (attempted) credits in the calculation of percent of progress and time frame for degree completion measurements.
8. **Pass/Fail Grades:** Pass grades are treated as registered credits/credits passed/no effect on GPA. Fail grades are treated as registered credits/zero credits passed/with zero QP averaged into the calculation of GPA. NOTE: Pass is used for thesis/dissertation only. See Grading System.
9. **Noncredit Courses:** Noncredit classes, such as those with Continuing Education Units (CEUs), are not used in measuring sufficient progress, since these classes cannot be applied toward degree requirements and no financial aid may be received for enrollment.
10. **Institutional Credits:** Institutional credits are counted as registered credits/credits completed. The QP for the course is not averaged into the student’s overall GPA.
11. **Fresh Start Program/Canceled Semester:** Students readmitted under the Fresh Start Program, or who have had a canceled semester, must still meet the financial aid qualitative and quantitative SAP requirements (using all previously enrolled semester data). Federal regulations do not permit the financial aid office staff to remove or ignore any academic statistics. NOTE: Canceled semester does not apply to graduate students.

Title IV Verification of Participation in Academically Related Activities Policy

All students shall engage in academically related activities in order to be eligible for federal (Title IV) student aid. All instructors of record shall verify their course rosters at designated times during each semester for such activity. This information will assist IUP personnel in Financial Aid and Bursar with the calculations of aid that may be awarded and/or returned.

Definitions

- A. **Withdrawal** – To cease attendance in all Title IV eligible classes in a payment period or period of attendance, as applicable. A student is considered to have withdrawn from a payment period or period of enrollment if, in the case of a program that is measured in credit hours, the student does not complete all the days in the payment period or period of enrollment that the student was scheduled to complete.
 1. **Official Withdrawal Date** – If a student provides written or oral notification of withdrawal to the university's designated office stating intent to withdraw, the withdrawal date is the date the university receives the notification.
 2. **Unofficial Withdrawal Date** – In general, if a student leaves the university without the provision of official notification, the withdrawal date is the midpoint of the payment period or period of enrollment, as applicable, or the last known date of an academically related activity in which the student participated.
- B. **Academically Related Activity**
 1. Academically related activities include, but are not limited to:
 - a. Physically attending a class where there is an opportunity for direct interaction between the instructor and students.
 - b. Submitting an academic assignment.

- c. Taking an exam, an interactive tutorial, or computer-assisted instruction.
 - d. Attending a study group that is assigned by the university.
 - e. Participating in an online discussion about academic matters.
 - f. Initiating contact with a faculty member to ask a question about the academic subject studied in the course.
2. Academically related activities do **not** include activities where a student may be present but not academically engaged, such as:
- a. Living in institutional housing.
 - b. Participating in the university's meal plan.
 - c. Logging into an online class without active participation.
 - d. Participating in academic counseling or advisement.
- C. **Academically Related Activity for Distance Education Courses** – In a distance education context, documenting that a student has logged into an online class is not sufficient, by itself, to demonstrate academic attendance by the student. A school must demonstrate that a student participated in class or was otherwise engaged in an academically related activity. Academically related activities in a distance education course include, but are not limited to:
- 1. Student submission of an academic assignment.
 - 2. Student submission of an exam.
 - 3. Documented student participation in an interactive tutorial or computer-assisted instruction.
 - 4. A posting by the student showing the student's participation in an online study group that is assigned by the institution.
 - 5. A posting by the student in a discussion forum showing the student's participation in an online discussion about academic matters.
 - 6. An email from the student or other documentation showing the student initiated contact with a faculty member to ask a question about the academic subject studied in the course.
- D. **Failing Grade, Earned** – Grade awarded to students who generally completed the course period but failed to achieve the course objectives. It is used when, in the opinion of the instructor, completed assignments or course activities or both were sufficient to make normal evaluation of academic performance possible (instructor will record a grade of “F”).
- E. **Failing Grade, Unearned** – Grade awarded to students who did not officially withdraw from the course, but who failed to participate in course activities through the end of the period. It is used when, in the opinion of the instructor, completed assignments or course activities or both were insufficient to make normal evaluation of academic performance possible (instructor will record a grade of “N”, along with the last known date of participation in academically related activities.)

Procedure

All instructors of record must verify in the student system that students on their course rosters have participated in academically related activities immediately after the drop/add period, when mid-term grades are recorded, and when final grades are submitted.

Immediately after drop/add, verification of course rosters affirms that the students listed have been involved in academically related activities associated with the course. For online courses, the faculty member shall advise students to log into the course and begin course activity during the add/drop period.

Mid-term and final grades must be recorded in the student system for all students with earned and unearned failing grades. Instructors must determine if the failure was based on performance (“F”) or non-participation (“N”), respectively, and must also record the last known date of participation in academically related activities if the student receives an unearned failing grade (“N”).

Roles and Responsibilities

Students will be responsible for engaging in academically related activities in their courses. Instructors will record participation at the end of the drop/add period. For students failing the course at mid-term and/or finals, instructors will record whether or not the failing grade was due to performance or non-performance (earned or unearned). If the failure was due to nonparticipation, the last known date of the student’s participation in academically related activities will be reported. IUP personnel in Financial Aid and the Bursar will use the recorded information to determine the amount of Title IV student aid may be awarded and/or returned.

Military and Veterans Resource Center (MVRC)

E-Mail: iup-mrc@iup.edu; **Telephone:** 724-357-3008

The Military and Veterans Resource Center (MVRC) certifies enrollment for undergraduate and graduate students who are eligible for veterans’ education benefits. Veterans, reservists, spouses, and children of deceased or disabled veterans should contact the MVRC before enrollment.

Veteran dependents and reservists must submit the following:

1. Certificate of Eligibility
2. Certification Request Form

Twelve credits are required to be considered a full-time undergraduate by the Veterans Administration. The minimum full-time requirement for a graduate student is nine credits. In addition to regular sources of financial aid, veterans and dependents of veterans may be eligible for VA education benefits. Benefit programs may be reviewed at www.gibill.va.gov.

Out-of-state students may qualify for in-state tuition rates if they meet the criteria defined in the Choice Act of 2014. If you have questions about your eligibility, contact the Military and Veterans Resource Center (MVRC).

The MVRC serves as a one-stop information and referral site to help students transition to college life and achieve their academic goals by providing military-friendly programs and services to IUP’s veteran and military affiliated students. The MVRC is designed to serve student veterans by helping them to find the guidance and information they need to complete their educational goals and by enhancing the sense of community they share with other students in similar circumstances.

For further information, veterans should contact the Director, MVRC, 101 Pratt Hall, Indiana, PA 15705, 724-357-3008. Email may be sent to veterans-affairs@iup.edu. Veterans may also review the IUP veterans website at www.iup.edu/veterans.

Student Programs and Services

The services and programs listed in this section are the result of collaborative efforts by student affairs professionals and faculty members to offer the IUP student a unique and fulfilling undergraduate and graduate student experience.

Student Affairs Division Areas

Website: www.iup.edu/studentaffairs; **Email:** iup-hawks@iup.edu

Alcohol, Tobacco, and other Drugs

Website: www.iup.edu/atod; **Telephone:** 724-357-1265

Athletics

Website: www.iupathletics.com

The Counseling Center

Website: www.iup.edu/counselingcenter; **Telephone:** 724-357-2621

Website: www.iup.edu/haven; **Prevention/Education:** 724-357-3947

Department for Disability Access and Advising

Website: www.iup.edu/disabilitysupport; **Email:** disability-access@iup.edu

Disability Access and Advising

(Within Department for Disability Access and Advising)

Health and Well-Being (Center for)

Website: www.iup.edu/chwb; **Telephone:** 724-357-WELL (9355)

Health AWAREness

Website: www.iup.edu/healthawareness; **Telephone:** 724-357-4799

Email: health-awareness@iup.edu

Health Service

Website: www.iup.edu/healthservice; **Telephone:** 724-357-2550

Email: health-inquiry@iup.edu

Nutrition Connection

Website: www.iup.edu/foodnutrition/nutritionconnection; **Telephone:** 724-357-4797

Housing, Residential Living, and Dining Information

Website: www.iup.edu/housing; **Email:** iup-housing@iup.edu or iup-dining@iup.edu

Military and Veterans Resource Center

Website: www.iup.edu/veterans/resource-center; Telephone: 724-357-3008

Email: iup-mrc@iup.edu

Student Conduct (Office of)

Website: www.iup.edu/studentconduct

Student Cooperative Association

Website: www.iup.edu/coop

Multicultural Student Leadership and Engagement (Center for) (MCSLE)

Website: www.iup.edu/mcsle

Enrollment Management and Communications Division

Website: www.iup.edu/enrollment

Admissions

Website: www.iup.edu/admissions; Email: admissions-inquiry@iup.edu

Financial Aid

Website: www.iup.edu/financialaid; Email: financial-aid@iup.edu

Career and Professional Development Center

Website: www.iup.edu/career; Email: career-development@iup.edu

Communications and Marketing Office

Website: www.iup.edu/communications

The following services and policies do not fall under the divisions of Student Affairs or Enrollment Management and Communications

IT Support Center

Website: www.iup.edu/itsupportcenter; Email: it-support-center@iup.edu

Parking

Website: www.iup.edu/parking; Email: parking-services@iup.edu

Student Rights and Responsibilities

Upon admission to the School of Graduate Studies and Research, students assume responsibility for knowing program requirements and following departmental advising requirements when selecting and registering for courses. Students are also responsible for knowing the procedures for paying fees, processing class drop/adds and withdrawals, and applying for and meeting all requirements for graduation.

Students writing a thesis or dissertation are responsible for several items, including selecting a committee, research topic approval, and much more. Please view the Thesis and Dissertation manual “Responsibilities” section, starting on page 4, to view requirements for students writing a thesis or dissertation: <http://www.iup.edu/graduatestudies/resources-for-current-students/research/thesis-dissertation-manual/>

Conversely, students have the right to expect that program requirements will be made clear, that course requirements—including grading criteria and procedures—will be made known early in a course, and that course grades will represent the instructor’s professional and objective evaluation of performance. Students have the right to instruction that encourages the free and open discussion of ideas and that respects reasonable student needs and aspirations. Students share with instructors the responsibility for creating a classroom atmosphere that encourages maximum learning and exhibits a more intense scholarly zeal than that expected in undergraduate studies.

IUP’s Civility Statement

As a university of different peoples and perspectives, IUP aspires to promote the growth of all people in their academic, professional, social, and personal lives. Students, faculty, and staff join together to create a community where people exchange ideas, listen to one another with consideration and respect, and are committed to fostering civility through university structures, policies, and procedures. We, as members of the university, strive to achieve the following individual commitments:

- **To strengthen the university for academic success**, I will act honestly, take responsibility for my behavior and continuous learning, and respect the freedom of others to express their views.
- **To foster an environment for personal growth**, I will honor and take care of my body, mind, and character. I will be helpful to others and respect their rights. I will discourage intolerance, hatred, and injustice, and promote constructive resolution of conflict.
- **To contribute to the future**, I will strive for the betterment of the community; myself, my university, the nation, and the world.

University Policies and Services

Affirmative Action

Indiana University of Pennsylvania is committed to provide leadership in taking affirmative action to assure equal education and employment rights for all persons without regard to race, color, sex, religion, national origin, sexual orientation, age, disability, or veterans' status. We believe that respect for the individual in the academic community must not be abused. Harassment or disregard of a person based on any of these characteristics is particularly intolerable on the university campus.

The university will take affirmative action to ensure the implementation of this policy in employment and admissions. This policy and the obligation to provide equal opportunity include the following commitment:

1. To recruit, hire, train, and promote persons for all job classifications and to admit and educate students without regard to race, color, sex, religion, national origin, sexual orientation, age, disability, or veterans' status.
2. To base decisions on selection, employment practices, employee utilization, job training, career mobility, promotion, program operation, and services provided in observance of the principles of equal employment opportunity and affirmative action.
3. To assure that all other personnel actions, such as compensation, benefits, transfers, furloughs, returns from furlough, agency-sponsored training, educational benefits, tuition assistance, social and recreational programs, etc., are administered in keeping with the policy, strategies, objectives, goals, and timetables of the Equal Opportunity Act and the Affirmative Action Plan of the university.
4. To create and maintain a workplace and educational climate that is free from discrimination and harassment, including sexual harassment, of any employee or student.
5. To make every effort to increase employment and educational opportunities for qualified disabled applicants and employees with disabilities.
6. To assure that, in offering employment or promotion to persons with disabilities, no reduction in compensation would result because of disability income or other benefits.
7. To assure that reasonable accommodations will be made for the physical disabilities of an applicant or student.

As an equal opportunity/affirmative action institution, the IUP Affirmative Action Plan is applicable to employees/enrollees of Indiana University of Pennsylvania under provisions of federal and state laws including Titles VI and VII of the Civil Rights Act of 1964, Title IX of the Educational Amendments of 1972, Sections 503 and 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990, and the Civil Rights Act of 1991, as well as all federal and state executive orders. This policy extends to disabled veterans and veterans of the Vietnam era.

The IUP Affirmative Action Plan supersedes the Affirmative Action Plan of 1995–96; the 1983 IUP Plan; the August 8, 1975, Affirmative Action Plan adopted by the Board of Trustees; and the March 31, 1982, Affirmative Action Plan submitted to the U.S. Office for Civil Rights.

Responsibility for the implementation of the IUP Affirmative Action Plan has been assigned to the associate vice president for Human Resources.

Any employee having suggestions, problems, or complaints with regard to equal employment or educational opportunity or affirmative action is encouraged to contact the director of Social Equity and Civic Engagement, Susan Snell Delaney Hall, Suite B17, or by calling (724) 357-3402.

Students with suggestions, problems, or complaints should contact the Office of the Vice President for Student Affairs, 215 Sutton Hall, by calling (724) 357-4040.

Employees having inquiries regarding accommodations for persons with disabilities should contact the director of Social Equity and Civic Engagement, Susan Snell Delaney Hall, Suite B17, or by calling (724) 357-3402.

Students with inquiries regarding accommodations should contact the 504 coordinator/ADA Student Concerns, 106 Pratt Hall, or by calling (724) 357-4067.

Specific inquiries regarding Title IX should be directed to the vice president for Student Affairs, Title IX Coordinator, 213 Sutton Hall or by calling (724) 357-4040.

Bereavement-Related Class Absence Policy

The university community recognizes the impact that the loss of a family member or loved one may have on the emotional and academic well-being of a student.

In such circumstances, a student may request that a bereavement absence notification be sent to their faculty by contacting either the Department of Disability Access and Advising or the dean's office of the college of their major, who will send an e-mail to the student's faculty stating that the student is away from the university due to the death of a family member or loved one. Documentation that verifies the death (e.g., a funeral program, death notice, obituary, etc.) and the nature of the student's relationship to the deceased may be requested.

The university encourages allowances for the grieving process, while acknowledging the faculty member's right in determining the terms of variance from the course syllabus. The student is expected to take the initiative to make all arrangements for meeting academic requirements. The university community also encourages students affected by a loss to contact the IUP Counseling Center or other university and community resources, as appropriate, if they are in need of ongoing emotional support.

E-mail Communication Policy

IUP provides e-mail services to all students and employees as an official form of university communication. Students maintain the responsibility to regularly read their IUP e-mail account and, if electronically responding to or sending e-mail regarding official IUP matters, use their IUP e-mail account to do so.

Information officially communicated to students through their IUP e-mail accounts includes billing invoices and information addressing academic, judicial, student safety, and emergency matters. Students are expected to regularly use their IUP e-mail account and should check it daily.

Students Rights under the Family Educational Rights and Privacy Act (FERPA)

FERPA affords students certain rights with respect to their education records. They follow:

1. 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, college dean, department chair, or other appropriate official written requests that identify the records they wish to inspect. The university official will arrange 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 official to whom the request was submitted, that official will advise the student to whom to direct the request.
2. The right to request amendment of the student's education records that he/she believes are inaccurate or misleading. Students should submit such requests in writing to the appropriate university official. The written request must clearly identify the part of the record the student wants to be changed and must specify why it is inaccurate or misleading. If the university decides not to amend the record as requested, the student will be notified of the decision by a university official who will advise the student of his/her right to a hearing regarding the requested amendment. Additional information regarding hearing procedures will be provided to the student when he or she is notified of the right to a hearing.
3. The right to consent to disclosures of personally identifiable information in the student's education records, except to the extent that FERPA authorizes disclosure without consent. One exception that permits disclosure without consent is to school officials with legitimate educational interests. A school official is a person employed by the university in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person with whom the university has contracted (such as an attorney, auditor, or collection agent); a person serving on the Council of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his/her tasks. A school official has a legitimate educational interest if the official needs to review an education record to fulfill his/her professional responsibility. This includes school officials in other institutions to which a student is seeking admission or intends to enroll.
4. The right to file a complaint with the US Department of Education concerning alleged failures by IUP to comply with the requirements of FERPA. The name and address of the office that administers FERPA follows: Family Policy Compliance Office, US Department of Education, 400 Maryland Avenue, SW, Washington, DC 20202-4605.

Inclement Weather Policy and Procedures

Indiana University of Pennsylvania is committed to the safety and security of its students, faculty, staff, and visitors. As such, the decision whether the university should close or remain open is based on the overall concern for the university community.

In general, however, IUP's practice will be to remain open and to conduct business as usual during periods of inclement weather, except as noted in this policy statement. Therefore, unless otherwise directed, all employees are expected to report to work at their regular time and to remain at work throughout the course of their regularly scheduled workday. If an employee believes she/he cannot commute safely between his/her home and place of work during periods of severe weather, the employee is required to notify his/her supervisor and use either annual or personal leave to cover the time off.

Closure of the University

Should adverse weather conditions arise or be anticipated that would make it inadvisable to operate the university on a given day, the president may, at his/her discretion, close the institution (i.e., cancel all classes and on-campus activities at all campuses and release all faculty members and non-essential administrative employees from their normal duties). [Note: The designation of "essential" vs. "non-essential" functions and personnel is made by each vice president for his/her respective functional area. Employees in essential operations will be advised of the critical and essential nature of their function and of how this policy applies to them.]

Reopening of the University

The university will reopen at the beginning of the first complete shift of the workday immediately following the day(s) of closure.

Cancellation of IUP-Sponsored Activities or Events in the Absence of University Closure

Should adverse weather conditions arise or be anticipated that would make it inadvisable to conduct an IUP-sponsored activity or event on a date when the university otherwise remains open, the sponsoring unit/department has the option to cancel or postpone the function.

Note: This policy is consistent with SSHE policies and procedures. (See Management Directive 530.17 Amended, November 13, 2007.)

Definitions

- *Essential function:* A function that has been designated as essential to the continued and safe operation of the campus. (Essential functions may vary depending upon the circumstances of the emergency.)
- *Essential employee:* An employee who works in an essential operation and is required to work during a partial or full-day campus closing.
- *Liberal leave:* Applies to the time period employees are unable to get to work. Employees must utilize approved annual, personal, or documented compensatory time. The intent to use such leave must be reported and called in to the supervisor in accordance with department call-in procedures. Under conditions of liberal leave, all supervisors will approve submitted leaves, assuming leave is available.

Responsibilities

The president of IUP (or his/her designee) is responsible for making the decision to close the university during periods of inclement weather.

The responsibilities of the vice presidents, the director of Media Relations, and IUP employees with response to university closure are detailed in the “Procedures” section of this policy statement. The responsibilities of IUP event sponsors who may opt to cancel or postpone university-sponsored functions during periods of severe weather when the university otherwise remains open are also detailed in the “Procedures” section of this statement.

General Process

In the event of potential inclement weather, the threat of weather or natural disasters such as earthquakes, tornados, floods, or threats to the university’s physical plant (fires, building collapse, chemical contamination), the AVP for Facilities Management will convene the Inclement Weather Advisory Team (IWAT) to discuss the potential impact to the university community and planned activities or events. The IWAT will quickly prepare a recommendation for action based on the best information available regarding the potential inclement weather or other factors as noted above. The IWAT will be charged with bringing information about the threat of inclement weather or other environmental factors as noted above, along with their recommendation, for action to the attention of the vice president for Administration and Finance, who then is responsible for calling and informing the president’s Executive Team. The president will make the final decision regarding the action to be taken. The IWAT is responsible for implementing the decision of the president.

Natural Disasters-Environmental Conditions

In the event of natural disasters or environmental conditions that occur without warning, the IWAT will meet as soon as possible following the occurrence to make recommendations for action, as outlined above in the General Process section. Recommendations will be based on the overall concern for safety and security of the university’s students, faculty, staff, visitors, and its facilities.

For Class Cancellation

The president of the university has the authority to cancel classes due to inclement weather conditions or other environmental factors that may jeopardize the safety of the students traveling to or from the university. Staff, managers, administrators, and non-instructional faculty are expected to report to, or stay at, work for the duration of their regular shift in this situation. For personal safety reasons, employees may choose not to report to work or to depart early from work but must follow departmental practices for reporting and using available leave.

For University Closing

The president has the authority to close the university due to inclement weather conditions or other environmental factors that may jeopardize the safety of the persons traveling to or from the university. Only employees, designated by their vice president as Essential Employees, will be required to report to work. Employees so designated are notified in writing from the Office of Human Resources prior to the winter season of each year. Essential Employees who do not report to work when the university is declared closed will be charged annual or personal leave and are required to submit leave documents.

For Canceling or Postponing IUP-Sponsored or Hosted Activities or Events

The president has the authority to cancel or postpone IUP-sponsored or hosted activities or events due to inclement weather conditions or other environmental factors that may jeopardize the safety of patrons traveling to or from the event. If a decision is made to cancel or postpone the activity or event, the vice president of the sponsoring division will assume responsibility for notifying activity or event participants of the cancellation or postponement in an appropriate and timely manner.

Process and Responsibilities (in general order of occurrence)

Beginning with each October, and every month thereafter through March, the Office of Human Resources will issue an Inclement Weather/Environmental Factors Reminder to all employees via e-mail. The office will also post the reminder at the [Human Resources website](#). The Inclement Weather Policy and Procedure will be provided to new employees during the new employee orientation. The associate vice president for Facilities Management is charged with recognizing inclement weather or other environmental factors that have the potential of disrupting the normal course of business at the university. She/he will convene the IWAT.

The IWAT will meet as soon as possible to discuss the potential threat to the university community's safety. The IWAT will gather information sufficient to form a recommendation for action. The IWAT will deliver its recommendation to the vice president for Administration and Finance. The vice president for Administration and Finance will consult with the president's Executive Team and, together, will make a recommendation to the president.

The president will decide which course of action to take with regard to canceling classes or closing the university, and/or canceling or postponing IUP-sponsored or hosted activities or events in the event of inclement weather or other environmental factors.

The vice president for Administration and Finance will advise the IWAT of the president's decision and instruct the IWAT to implement the president's order using the Inclement Weather/Environmental Factors Communication Plan (below) and other appropriate means.

The associate director of Communications will provide leadership for consistent information to media outlets and to the IUP website.

If a decision is made to cancel or postpone an activity or event, the vice president of the sponsoring division will assume responsibility for notifying activity or event participants of the cancellation or postponement in an appropriate and timely manner.

Inclement Weather/Environmental Factors Communication Plan

Once the vice president for Administration and Finance advises the IWAT of the president's decision, the following communication plan will be activated:

- The Office of the Associate Vice President for Human Resources will send a message via e-mail to all employees. When classes are canceled, the message will remind employees that they are required to work during that period of cancellation. The message will encourage all employees to use their best judgment in traveling.

- The Office of the Vice President for Student Affairs will send a message to all students informing them of the status of the university, which will include information about the status at all regional campuses and off-campus sites along with the status of university-sponsored or hosted events and activities. This message will encourage all students to use their best judgment in traveling. This message may contain special messages such as temporary parking restrictions.
- The director of Communications will send a text message to all subscribers of the IUP SMS Emergency Notification System about the cancellation of classes, university closure, or cancellation or postponement of IUP-sponsored or hosted activities or events, including the status at regional campuses. This message may contain special messages, such as temporary parking restrictions. This information will also be recorded on the IUP Information Line at 724-357-7538. The Communications Office staff will be responsible for submitting and posting correct and accurate information about class and event cancellations or closures to the following sources:

Radio:

- WDAD-AM 1450
- WCCS-AM 1160
- U-92 FM (92.5) (Indiana, Punxsutawney, Greensburg)
- WTAE-AM radio (1250 Pittsburgh)
- KDKA-AM radio (1020 Pittsburgh)

Television:

- KDKA-TV
- WTAE-TV
- WJAC-TV
- WPXI-TV

Other Media:

- www.iup.edu
- IUP Information Line (724) 357-7538
- IUP Daily
- IUP Text Subscribers

Essential Information

In order to be as clear and consistent as possible, the following uniform statements will be used in case of inclement weather messages:

1. Status declared:

- University closed
- Classes canceled
- IUP-sponsored or hosted activities or events canceled or postponed

2. When?

- Immediately for what hour:

- Evening classes for date:
- Day classes for date:
- Single day for date:
- Multiple days for days:
- Resume date/time of cancellations (i.e., when do things open back up?)
- All Campuses
- Indiana campus only
- Punxsutawney campus
- Fairman Centre
- Academy of Culinary Arts
- Northpointe campus
- Monroeville Center
- Online courses?

3. *Why?*

- Snow
- Ice
- Tornado
- Hurricane
- High wind
- Flood
- Storm
- Fire
- Lightning
- Other

4. *Parking Restrictions?*

- Yes; details:
 - Student parking
 - Remove vehicles from campus?
 - Employee parking
 - Handicapped parking
 - On-street parking, if applicable
 - Shuttle service, if applicable
 - Violations/towing
 - Parking enforcement
 - Start date/time of parking lot closures
 - Resume date/time of parking lot openings
 - None; no restrictions

5. *Who is to Report?*

- All employees
- All non-instructional employees
- Essential employees Only
- No one

- Other
- Exercise caution/use best judgment when traveling

6. Liberal Leave Invoked?

Non-Discrimination and Harassment Policy

Discrimination based on age, color, national origin, race, religion, disability, veteran's status, sex, sexual orientation, or gender identity is prohibited. All employees, students, and those outside of the university who work in or with the university, including vendors and volunteers, must comply with applicable federal, state, and local laws as well as government regulations regarding discrimination.

Acts of discrimination, harassment or retaliation will not be tolerated, and alleged violations of this policy will be investigated following the steps detailed in the policy. Violators of this policy will be disciplined consistent with this policy and applicable labor agreements. Discipline may include but is not limited to a warning, transfer, suspension, termination, or expulsion from the university.

Complaints of sexual harassment or sexual violence, including sexual assault, dating violence, domestic violence, and stalking are processed under the university's Sexual Harassment and Sexual Violence policy and related procedures. For more information about the university's Title IX program, please refer to the University's Social Equity website at: www.iup.edu/social-equity/policies/title-ix/default.aspx.

Definitions

Discrimination: An adverse employment or academic action or decision that is based on or motivated by an individual's membership in a protected class that is sufficiently severe, persistent, or pervasive so as to substantially limit or interfere with an individual's work environment, educational performance, participation in extracurricular activities or equal access to the university's resources and opportunities.

Harassment: Any conduct directed toward an individual based on membership in a protected class that is sufficiently severe, persistent, or pervasive so as to substantially limit or interfere with an individual's work environment, educational performance, participation in extracurricular activities or equal access to the university's resources and opportunities. Harassment is a form of discrimination. Constitutionally protected expression cannot be considered harassment under this policy.

Complainant: The individual who is alleging the occurrence of discrimination.

Respondent: The individual against whom allegations of discrimination, harassment or retaliation have been made.

Retaliation Prohibited

Retaliation is a form of discrimination. The university prohibits retaliation against any party who, in good faith, reports, assists or participates in an investigation under this policy.

Retaliation, if found to have occurred, is considered an offense separate from the original complaint of discrimination or harassment. The university will take disciplinary action against those who participate in retaliatory behavior. Individuals who believe they have been subjected to retaliation should report the conduct to the Office of Social Equity as promptly as possible.

Complaint Process for Allegations Against Students

The procedures for processing a discrimination, harassment or retaliation complaint against a student (student to student or allegations in which the alleged offender is a student) are addressed through a formal student conduct proceeding, which is described in and governed by the Student Conduct Policies and Regulations. For more information, please refer to the Office of Student Conduct website on policies: www.iup.edu/studentconduct/policies.

To make a complaint against a student who is alleged to have engaged in discrimination, harassment or retaliation and to discuss options, contact the Office of Student Conduct, 307 Pratt Hall, 724-357-1264. If the individual does not want to proceed with a conduct complaint or police report against a student alleged to have violated this policy, the university's Office of Social Equity may still investigate, but may be limited in its ability to do so.

Complaint Process for Allegations Against Employees, Vendors, and Volunteers

Any member of the university community who believes he or she may have experienced discrimination, harassment or retaliation in violation of this policy by an employee, vendor or volunteer may use either the informal resolution process or the formal complaint process, or both. The informal resolution and formal complaint processes described in this policy are not mutually exclusive and neither is required as a pre-condition for choosing the other; however, they cannot both be used at the same time. Anonymous complaints will be individually assessed for credibility and with regard to the extent they can be investigated.

- A. **Informal Resolution:** This process may be used as a prelude to filing a formal complaint or as an alternative. It is not necessary that this option be used. Anyone who believes that he or she has been subject to discrimination, harassment or retaliation may immediately file a formal complaint as described below. Informal resolution may be an appropriate choice when the conduct involved is not of a serious or repetitive nature, and disciplinary action is not required to remedy the situation. No formal investigation is involved in the informal resolution process.
1. *Reporting:* Individuals wishing to use the informal resolution process should contact the Office of Social Equity. If individuals in the Office of Social Equity or the designee appointed by the Office of Social Equity are part of the alleged discrimination, harassment, or retaliation, the Associate Vice President for Human Resources should be contacted instead.
 2. *Assistance:* The individual is provided assistance in attempting to resolve possible discrimination if the individual does not wish to file a formal complaint. Such assistance includes strategies for the individual to effectively inform the offending party that his or her behavior is offensive and should cease. Action should be taken by an appropriate university official to stop the offensive conduct, modify the situation in which the offensive conduct occurred, or begin mediation between the parties.

However, the university may take more formal action to ensure an environment free of discrimination.

3. *Time frame:* The Office of Social Equity or designee shall make a good faith effort, with the complainant's written consent, to resolve the complaint in a timely manner consistent with the complexity and severity of the matter. Any resolution efforts extending beyond 15 working days shall be noted.
- B. **Formal Complaint:** The goal of the formal complaint process is to reach an official determination as to whether a respondent(s) has violated this policy. As a part of the formal complaint process, an adequate, reliable and impartial investigation will be conducted into the allegations of the complaint and a report of the investigation prepared.
1. *Reporting:* Complaints must be made to the university's Office of Social Equity. The complaint should include the complainant's name and contact information; the name of the person(s) directly responsible for the alleged violation; a detailed description of the conduct or event that is the basis of the alleged violation; the date(s) and location(s) of the occurrence(s); the names of any witnesses to the occurrence(s); the resolution sought; and, any documents or information that is relevant to the complaint. While an investigation may begin on the basis of an oral complaint, the complainant is strongly encouraged to file a written complaint. Complaints should be filed as soon as possible after the conduct giving rise to the complaint, but no later than 30 working days after the event occurred. This deadline may be extended by the designated investigator based on extenuating circumstances.
 2. *Notice of Allegation:* As part of the investigation process, the respondent shall be provided with a copy or summary of the allegations and be given the opportunity to respond verbally and/or in writing within a reasonable time frame. The response should include the names of any witnesses or other evidence the respondent may wish to have considered.
 3. *Investigation:* The fact-finding process is intended to be an internal investigation, not an adjudicatory process. The strict rules of evidence and criminal or civil procedure do not apply. The complainant and the respondent may present any document or information that is believed to be relevant to the complaint. Any persons thought to have information relevant to the complaint shall be interviewed and such interviews shall be appropriately documented. The respondent and the complainant are permitted to have a union representative present as an advisor, if applicable. Allegations or matters of conduct outside the scope of this policy may be referred to the appropriate official for review and action.
 4. *Timing:* Within 10 working days of receipt of a complaint, an investigation of the complaint will be undertaken. The investigation of a complaint will be concluded as soon as possible after receipt of the complaint, consistent with the complexity and severity of the matter. For investigations exceeding 60 days, a justification for the delay shall be included in the written report.
 5. *Written Report:* Upon completion of the investigation, a written report will be issued. The report shall include: a statement of the findings of fact, including an analysis of the facts discovered during the investigation; a statement of conclusions the investigator has drawn, if any; and any other relevant information deemed appropriate to the findings of fact. Both the complainant and the respondent shall be provided an opportunity to review a summary of the written report and submit comments.

6. *Review*: The President or designee, as appropriate, will review the summary of the written report, the written report and any comments submitted by the complainant or respondent. The President or designee may request further investigation; dismiss the complaint if the results of the completed investigation are inconclusive or there is insufficient evidence, based on a preponderance of the evidence, to support the allegation(s); or find this policy was violated. The President or designee will determine what appropriate action, if any, will be taken. A pre-disciplinary conference will be held prior to issuing any discipline, consistent with the disciplinary procedures proscribed in any applicable labor agreement. The university shall take steps to prevent the recurrence of discrimination, harassment or retaliation under this policy and to correct any discriminatory effects on the complainant and others, if appropriate.
7. *Notice of Outcome*: Once the President or designee has rendered a decision and notified the respondent in writing, the formal investigator shall, to the extent permitted by the Family Educational Rights and Privacy Act, notify the complainant, in writing, of the results of the investigation and the action taken by the university to resolve the complaint. At the conclusion of the formal investigation, all records from the formal resolution process will be retained in accordance with the university's records retention policy. records of investigations will not be maintained in personnel files unless formal disciplinary action is taken.

C. **Appeal and Reporting to Outside Entities**: The respondent may appeal any discipline rendered as provided in the grievance procedures of his or her respective labor agreement or the Board of Governors' Merit Principles Policy (Policy 1983-01-A), as applicable. The complainant has the option at any time during informal resolution or formal complaint process to file a complaint through an external public agency responsible for enforcing laws regarding discrimination. Generally this filing should take place within 180 days beginning with the date of the last alleged incident.

- Equal Employment Opportunity Commission, www.eeoc.gov
1000 Liberty Avenue, Pittsburgh, PA 15222, 412-644-3444 Pennsylvania
- Human Relations Commission, www.phrc.state.pa.us 300 Liberty Ave., State Office Bldg., 11th Floor, Pittsburgh, PA 15222 - (412) 565-5395
- US Department of Education, Office for Civil Rights,
www.ed.gov/about/offices/list/ocr/index.html
400 Maryland Avenue, Washington DC, 20202-5151, (800) 421-3481

D. **Privacy**: The university will endeavor to honor an individual's desire for privacy, to the extent permitted by law, which still allows the university to provide an environment free of discrimination. Relevant information will be provided to those persons who need to know in order to achieve a timely resolution of the complaint.

E. **False Complaints**: Any person who knowingly and intentionally files a false complaint under this policy or any person who knowingly and intentionally makes false statements

within the course of the investigation is subject to disciplinary action up to and including termination of employment.

- F. **Dissemination of Policy:** The policy will be posted on the university's website and copies will be made available to all members of the university community, including employees (administrators, faculty, and staff), volunteers, students, vendors and all applicants for admission or employment upon request. Periodic notices will be sent to employees and students which will include referral information and information about the complaint procedures. The university will periodically educate and train employees and supervisors regarding the policy and conduct that could constitute a violation of the policy.

The policy was established on April 26, 2016. Questions about the policy should be directed to the Office of Social Equity, Delaney Hall, Suite B17, phone: 724-357-3402.

Semester Course Syllabi University Policy

Each faculty member shall prepare and distribute a course syllabus, without charge, to each student within one week of the start of the course. The syllabus will be consistent with the course content and catalog description that was approved by the Curriculum Committee of the University Senate for the initial course offering or revision. Course syllabi may be distributed in hard copy or electronic versions. The course syllabus is a vehicle of communication to promote student academic planning and to avoid misunderstandings of the course plan and requirements. It is recommended that each syllabus include

- a. the faculty member's name, office location, telephone number, IUP e-mail address, and office hours,
- b. an outline of the course content, objectives, and prerequisites, as appropriate,
- c. information about any required textbook(s) with title, author, and edition, as well as any other required materials,
- d. information on the determination of grades, including the weight, types, and scheduling of evaluations, other planned requirements, academic integrity, expectations for class participation, and attendance,
- e. a statement of policies and/or penalties for make-up exams and late submission of assignments,
- f. a statement addressing accommodations for students with disabilities.

Services for Students with Disabilities

Disability Support Services, located in 216 Pratt Hall, provides services to students with disabilities of all kinds, including learning, physical, hearing, vision, or psychological. IUP is committed to ensuring equal access to education as intended by Section 504 of the Rehabilitation Act of 1973 and the Americans With Disabilities Act.

IUP makes every effort to be accessible to students with physical disabilities, striving to provide programmatic access by moving classroom locations to provide first floor access and/or proximity to other classrooms used by the students. Students with disabilities are requested to meet with a member of the DSS staff upon entering IUP or upon onset of the disability. In turn, DSS makes every effort to discuss needs and concerns and to provide the office with

documentation of the disability. After the initial semester of attendance, arrangements for early scheduling of classes can be made for students requiring accessible classes or services such as note takers or recorded books.

Disability Support Services also serves students with hearing loss or visual impairments. A DSS adviser assists in locating note takers and arranging testing accommodations. Interpreters and/or visual aides are provided through DSS or through OVR or BVS (Blind and Visual Services). DSS also assists in getting recorded textbooks through Recording for the Blind and Dyslexic (RFB&D) or a local volunteer service, loaning four-track recorders, and arranging for test readers. Students requiring recorded textbooks, note takers, or interpreters may also utilize the early registration system provided by the office.

Student Rights/Directory Information

The following information is considered directory information under the Family Educational Rights and Privacy Act and may be released without the student's permission: name, address, telephone number, dates and status of attendance (enrolled, part-time/full-time) and previous institutions attended, degrees conferred, major field of study and class, awards and honors, past and present participation in officially recognized sports and activities as well as physical factors of athletes (such as height and weight), and e-mail username.

Students may request that directory information not be publicly released by completing a nondisclosure request, available in the Office of the Registrar, Clark Hall. This will result in the student's directory information being re-moved from the "Find People" on-line directory on the IUP website. Upon receipt of this signed form in the Office of the Registrar, all information will be withheld, even beyond graduation, unless the student requests in writing that this nondisclosure request be rescinded.

Title IX Reporting

Indiana University of Pennsylvania 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 Department of Human Services, at 1-800-932-0313, and University Police, at 724-357-2141.

Information regarding the reporting of sexual violence and the resources that are available to victims of sexual violence is set forth at: www.iup.edu/social-equity/policies/title-ix

Please direct all general inquiries regarding equal opportunity and affirmative action to Office of Social Equity

Delaney Hall, Suite B17
920 Grant Street
Indiana, PA 15705
Telephone: 724-357-3402
Fax: 724-357-3404

TD: Telecommunications Device available in the
Department for Disability Access and Advising, 724-357-4067 (V/TD)
(8:00 a.m.-4:30 p.m., Monday through Friday)

IUP ensures compliance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act through the provision of program access accommodations. Please direct inquiries regarding accommodations for persons with disabilities to:

Student Concerns:
Director, Department for Disability Access and Advising
504 Coordinator/ADA Student Concerns Coordinator
201 Pratt Dr., Room 216
Indiana, PA 15705
Telephone: 724-357-4067

Employee Concerns:
Office of Human Resources
G-8 Sutton Hall
1011 South Drive
Indiana, PA 15705
Telephone: 724-357-2431
Fax: 724-357-2685

Specific inquiries regarding Title IX should be directed to:
Office of Social Equity
Delaney Hall, Suite B17
920 Grant Street
Indiana, PA 15705
Telephone: 724-357-3402
Fax: 724-357-3404

The university publishes an online student handbook, *The Source: A Student Policy Guide*, which is a companion to this catalog. The handbook contains detailed information on the policies mentioned on this page. It is accessible to all enrolled students at:
www.iup.edu/studentconduct/thesource.

Questions regarding the Sexual Harassment and Sexual Violence Policy or complaint procedures, should be directed to:
Title IX Coordinator
Delaney Hall, Suite B17

Indiana, PA 15705
Telephone: 724-357-3402.

The IUP Sexual Harassment and Sexual Violence Policy is accessible at the website iup.edu/social-equity/policies/sexual-harassment-and-sexual-violence/.

Academic Policies

Academic Credits and Student Status

Full-time graduate student status is defined as nine or more semester hours of graduate credits per semester, while part-time status is defined as eight or fewer semester hours per semester.

Academic Good Standing

IUP master's students must maintain a minimum of 3.0 ("B") cumulative graduate quality point average to be in good standing academically.

Students who fall below good standing are placed on probation for their next active semester or summer term, during which the cumulative average must be raised to 3.0. Students who fail to raise their cumulative averages to at least 3.0 during their probation period will be dropped from their degree program as well as from the School of Graduate Studies and Research and will not be permitted to register for further courses. A student must be in good standing to be admitted to degree candidacy and to graduate. This policy remains the same for students pursuing a graduate degree at the doctoral level, except the required minimum grade point average is between 3.0 and 3.5, depending upon the program.

Academic Integrity Policy and Procedures

IUP is committed to the fundamental values of academic integrity. Academic integrity means honesty and responsibility in scholarly endeavors and behaviors; it means that all academic work should be the result of an individual's own effort. Academic assignments help students learn and allow them to exhibit this learning. Grades are an assessment of the extent to which learning has been demonstrated in assignments. Therefore, academic work and grades should be the result of a student's own understanding and effort. All members of the IUP community - including students, faculty, and staff - are responsible for maintaining academic integrity, which includes knowing what IUP's academic integrity policies are and being able to identify academic misconduct. Academic misconduct includes any action which improperly impacts the assessment or representation of a student's academic achievement. Academic misconduct may result in disciplinary action, including expulsion from the University.

Types of Violations

Academic integrity violations can take many forms. Violations of IUP's standards of academic integrity include, **but are not limited to**, the following broadly defined categories:

- 1. Plagiarism**

Plagiarism is a type of fraud that involves stealing someone else's work and lying about it. Using someone else's words, ideas, or data as if it were one's own work is plagiarism. Plagiarism applies to any type of source, whether published or unpublished, and to any type of assignment, whether written, verbal, or otherwise. Plagiarism can be avoided simply by acknowledging that certain material is the work of another, and then providing a citation that gives a reader the information necessary to find the source of the work.

Any assignment submitted by a student that includes the words, ideas, or data of another must include complete, accurate, and specific references. Any verbatim statements must

also include quotation marks. More information about what constitutes plagiarism and how to avoid it can be found online at the Office of the Provost website.

2. Fabrication

Fabrication means making something up to deceive or mislead someone. This includes, but is not limited to, the use of fictitious data, research, citations, or any other kind of information. Fabrication also includes making false claims to influence testing or grading, or to gain academic credit. More information about what constitutes fabrication and how to avoid it can be found online at the Office of the Provost website.

3. Cheating

Cheating is an attempt to misrepresent one's mastery of information or skills being assessed. Cheating takes many forms; it includes, but is not limited to, using (or attempting to use) unauthorized materials, assistance, information, devices, or study aids in any academic exercise. Cheating includes, among other things, using the same paper or work more than once without authorization of the faculty member to whom the work is being submitted. More information about what constitutes cheating and how to avoid it can be found online at the Office of the Provost website.

4. Technological Misconduct

Computer dishonesty, as addressed by university computing policies, includes, but is not limited to, using or attempting to use computing accounts or other information for which the student is not authorized; providing false or misleading information to obtain a computing account or access to other information resources; attempting to obtain information resource access codes (usernames, passwords, PINs, etc.) for another user's computing accounts; sharing information resource access codes (usernames, passwords, PINs, etc.) with other individuals; attempting to disguise the identity of a computing account or other information resource; using or attempting to use university network resources to gain or attempt to gain unauthorized access to remote computers including, but not limited to, port scanning; violating the terms of intellectual property rights, in particular software license agreements and copyright laws; using information resources to monitor another user's data communications or to read, copy, change, or delete another user's files or software without permission of the owner; and using or installing or attempting to use or install software not properly licensed. More information about what constitutes technological misconduct and how to avoid it can be found online at the Office of the Provost website.

5. Academic Dishonesty

Academic dishonesty consists of any deceitful or unfair conduct relevant to a student's participation in a course or any other academic exercise or function. Academic dishonesty includes, but is not limited to: tampering with grades, any action that unfairly impacts the assessment of one's academic work, disrupting or interfering with the learning environment or the ability of others to complete academic assignments, intentionally evading IUP academic policies and procedures, or failure to comply with previously imposed sanctions for academic violations. Academic dishonesty also includes violations of student conduct policies, as related to the academic environment.

A comprehensive discussion of IUP's policies and student behavior expectations has been compiled in, "The Source: A Student Policy Guide." Downloadable copies of "The Source" are available online at the Office of Student Conduct website.

6. Facilitating Academic Integrity Violations

Facilitating academic integrity violations includes attempting to help another engage in an academic integrity violation.

7. Classroom Misconduct

Conduct that significantly disrupts the learning process or is a threat to others.

8. Unethical or Hazardous Behavior

Behavior that is unethical or hazardous in professional experience activities; for example, internship, practicum, service learning experience, out of the classroom experience.

The university reserves the right to discipline any student for the above policy violations and any other action that an ordinary, reasonable, college student knows, or should know, might lead to the issuance of discipline. This means the university maintains the right to issue discipline for reasonable cause.

Charges of academic integrity violations may be brought by a faculty member or administrator. Students who observe or become aware of a violation of academic integrity by another student are strongly encouraged to report it to a university official. A faculty member/administrator who believes that a student has violated an academic policy should resolve the matter by Documented Agreement or by Formal Adjudication. Sanctions(s) may not be imposed on a student believed to have violated an academic policy without following one of these procedures.

If charges are brought, the accused student shall have a fair and reasonable opportunity to answer, explain, and defend himself or herself against the charges. The university shall have the burden of proof in all cases.

Options for Resolution

Once an academic integrity violation has been established a faculty member or administrator must use one of the following two options to resolve the alleged violation.

1. Resolution by Documented Agreement

The faculty member/administrator will schedule a formal conference with the student in an attempt to reach a mutually agreeable resolution. This conference must be scheduled/requested within ten (10) calendar days of the observation or discovery of the alleged violation absent unusual circumstances. The faculty member/administrator is responsible for convening the meeting with the student. If an agreement is reached, the faculty member/administrator must complete a Documented Agreement Referral Form outlining the agreement and have it acknowledged by both parties: faculty member/administrator and student. The form is accessible online at MyIUP. If the violation pertains to work such as a thesis or comprehensive examination being judged or that has been judged by a committee, the conference must involve a majority of the

committee, and the Documented Agreement Referral Form must be agreed to by a majority of the committee and the student. Electronic copies of the form are distributed to the student, the faculty member/administrator filing the agreement, the department chair, the Office of the Provost, and the Office of Student Conduct. The form must be filed within 10 days of the conference.

By signing the Documented Agreement, the student waives any right to appeal the sanctions agreed upon and set forth in the Documented Agreement. If the student fails to fulfill the Documented Agreement, the faculty member/administrator may file an academic integrity referral against the student for noncompliance.

If a Documented Agreement is not reached, the faculty member/administrator shall initiate the formal adjudication process by filing an Academic Integrity Referral Form with the Provost's office within 10 calendar days of the conference with the student.

If a previous academic integrity violation for the student is on record, the matter will be referred to an Academic Integrity Board.

2. Resolution by Formal Adjudication

A faculty member/administrator should pursue formal adjudication: (a) if he/she cannot reach, or chooses not to attempt, a Resolution by Documented Agreement with the student regarding the case or sanctions to be imposed; or (b) if the faculty member/administrator believes that the violation is so severe that it warrants sanctions such as: awarding a failing grade on a project or exam when resubmitting the project or retaking the exam is not possible; involuntary withdrawal from part of IUP's academic or other programs; suspension; expulsion; or rescission of a conferred degree are only levied at AIB

A faculty member/administrator has one of two options for formal adjudication: (a) with a department chair appointed by the provost (or provost's designee); or (b) with AIB.

The faculty member/administrator should file a Documented Agreement Referral Form with the Provost's office within 10 calendar days of the observation or discovery of the violation or within 10 calendar days of the failure to reach a resolution through Resolution by Documented Agreement. If the violation pertains to work being judged by a committee, the form must be approved by a majority of the committee. The form will contain a description of the alleged violation, including the time, date, and place of occurrence, and the recommended sanction if the student is found to have violated this policy.

The Formal Adjudication (not AIB) must include the student, a department chair appointed by the provost (or provost's designee) to serve as the chair of the formal adjudication hearing, the faculty member/administrator, and the dean of the School of Graduate Studies and Research (or dean's designee). All parties may invite others with pertinent information. The student and the faculty member/administrator must be given the opportunity to submit written, physical, and testimonial evidence, and to question

witnesses. The Provost's Office is responsible for working with the appointed department chair to convene the Formal Adjudication.

Academic Integrity Board (AIB)

The AIB may be asked to hear cases filed at the Resolution by Formal Adjudication level. In addition, the AIB will hear all cases in which appeals to the chair's decision are accepted by the provost/designee. The AIB will also review sanctions in cases of multiple violations.

For graduate-level cases reviewed by the AIB will be made up of four (4) graduate faculty members, one of whom will chair the AIB, and two (2) graduate students; and the dean of the School of Graduate Studies and Research (or dean's designee). A quorum requires the presence of four (4) people, at least one of whom must be a graduate student. All members, including the chair of the AIB, are voting members.

More information about the procedures for constituting an Academic Integrity Board can be found online at the Office of the Provost website.

Appeals

The appeals procedures apply to graduate cases resolved through formal adjudication. Cases of academic integrity that are resolved through Documented Agreement cannot be appealed.

If, after receiving the department chair's report on the outcome of the hearing, the faculty member/administrator or the student disagrees with the decision, the sanction, or both, he/she may appeal to the provost/designee in writing within ten (10) calendar days of receiving the report, for any of the following, detailing(s):

- a) Denial of a fair and reasonable hearing
- b) New evidence (applies when there is an acceptable reason why the information was not presented at the original hearing)
- c) Excessively harsh sanctions

The provost/designee may deny the appeal or direct the appeal to be heard by an AIB within 10 calendar days. All appeals involving sanctions of involuntary withdrawal from part of IUP's academic or other programs, suspension, expulsion, or rescission of a degree will be heard by an AIB.

Unless the recommended sanction is suspension, expulsion, or rescission of a degree, the decision of the AIB is final and will be implemented by the provost/designee. Suspension, expulsion, or rescission of a degree may be recommended by the AIB but can only be implemented by the president/designee.

Multiple Violations

Information about prior violations is not relevant to determining whether a student violated the policy in the current case. The AIB may request information on prior violations only after determining a violation has occurred. Information on prior violations may be used in determining the appropriate sanction.

If a student is found in violation of academic integrity two or more times, all materials within the student's past and present academic integrity files shall be used in determining appropriate sanctions. Students with multiple academic integrity violations of record may be subjected to additional sanctions, including possible suspension or expulsion from the university.

For cases previously resolved by Documented Agreement or through formal adjudication at the department chair's level, an AIB hearing will be scheduled. This hearing will review all information pertinent to the determination of an appropriate sanction but will not reconsider the issue of whether the policy violation occurred. After considering the severity of the current and prior violations, the AIB may determine whether a more severe sanction is appropriate.

The AIB must submit a written report on the decision within ten (10) calendar days of its decision to the provost/designee, absent unusual circumstances, who will forward the decision to the involved parties.

The student may appeal any new sanction to the provost/designee under the appeal guidelines. The provost/designee may direct the appeal to be heard by a second AIB.

Sanctions

The following sanctions may be agreed upon by the student and faculty member/administrator through Documented Agreement. All grade reductions require the approval of the instructor of record. If the work is graded by a committee, a grade reduction requires approval of the majority of the committee.

- a) **Single Grade Reduction:** Reduction of grade or failure on project, examination, quiz, or other academic exercise on which the student is alleged to have cheated.
- b) **Course Grade Reduction:** Reduction of course grade or failure in the course. If the violation involves a project spanning multiple courses (such as a dissertation or multiple semester internship), the grade reduction may apply to all courses involved.
- c) **Constructive or Educational Task:** A task that requires the student to examine his/her dishonest behavior and that may benefit the student, campus, or community.
- d) **Other:** Sanctions deemed appropriate and tailored to a specific violation as determined by the faculty member/administrator. Any reasonable sanction or combination of sanctions for a given violation may be agreed upon by the student and faculty member/administrator.

In addition to the above sanctions, Formal Adjudication may result in:

- a) **Letter of Warning:** A warning letter may be issued indicating that the student has been found in violation of an academic policy and that failure to comply with policies in the future may result in further disciplinary action to be handled by a subsequent offense. The letter of warning will remain in effect for a period of time as specified by the individual or board hearing the case.
- b) **Disciplinary Probation:** Disciplinary probation, which is for a period of time specified by the individual or board hearing the case, is an indication that a student's status at the

university is seriously jeopardized. If the student is found in violation of another IUP policy during the probationary period, a more serious sanction will be levied, including possible involuntary withdrawal from part of IUP's academic or other programs, suspension, or expulsion from the university. If Formal Adjudication recommends Involuntary Withdrawal from the program, the student may not apply to another graduate program at IUP.

In addition to the above Sanctions, the Academic Integrity Board may impose the following Sanctions:

- c) **Involuntary withdrawal from part of IUP's academic or other programs:** A student may be denied the right to participate in some IUP program(s). Such involuntary withdrawal might be imposed on either a temporary or permanent basis. If the AIB recommends Involuntary Withdrawal from the program, the student may not apply to another graduate program at IUP.
- d) **Suspension:** A student may be suspended from the university for a specified period of time, not to be less than the remainder of the current semester. Suspension requires that a student remove himself/herself from university premises, not attend classes or social activities, and not be present on university or Student Cooperative Association property during the period of suspension.
- e) **Expulsion:** Expulsion may be considered under any of the following circumstances: when there is a very serious violation of the Academic Integrity Policy, when a student is proven to have violated the Academic Integrity Policy on more than one occasion, or when a student appears before the board after already having been suspended. Expulsion from the institution is permanent. Appeals to the sanction of expulsion must be submitted to the Office of the President. Suspension, expulsion, and rescission of a degree can be recommended by a faculty member/administrator, department chair, and AIB but can be imposed only by the president/designee.
- f) **Rescission of a degree:** A student may have his/her degree rescinded if found to have plagiarized or not to have conducted his/her own research on his/her thesis or dissertation.

Questions concerning the Academic Integrity Policy and Procedures can be directed to the Office of the Provost. More information about Academic Integrity Procedures can be found online at the Office of the Provost website.

Admission Classifications

IUP's two graduate admission classifications are "Degree-seeking Admission" and "Non-degree Seeking Admission." Those admitted to IUP Master's and Doctoral programs are considered degree-seeking.

Non-degree seeking admission subcategories include Certificate, Certification Only, Special Status, and One Course Only. Applicants who are admitted as Non-degree Seeking Admission students can apply for Degree-seeking Admission for future terms.

Advisement

Students are expected to consult their academic advisor or program coordinator after admission to the School of Graduate Studies and Research about course scheduling. Students are responsible for knowing their department's scheduling advisement rules.

Bereavement-Related Class Absence Policy

The university community recognizes the impact that the loss of a family member or loved one may have on the emotional and academic well-being of a student.

In such circumstances, a student may request that a bereavement absence notification be sent to their faculty by contacting either the Department of Disability Access and Advising or the dean's office of the college of their major, who will send an e-mail to the student's faculty stating that the student is away from the university due to the death of a family member or loved one. Documentation that verifies the death (e.g., a funeral program, death notice, obituary, etc.) and the nature of the student's relationship to the deceased may be requested.

The university encourages allowances for the grieving process, while acknowledging the faculty member's right in determining the terms of variance from the course syllabus. The student is expected to take the initiative to make all arrangements for meeting academic requirements. The university community also encourages students affected by a loss to contact the IUP Counseling Center or other university and community resources, as appropriate, if they are in need of ongoing emotional support.

Candidacy/Qualifier Exam

In departments which require it, the candidacy/qualifier examination is administered by the department in the student's field of specialization. The examination may be written, oral, or both, as determined by the sponsoring department, and it may also serve as the final examination for the master's degree if a department so prescribes. The examination may not be taken until the student has completed at least one year of study beyond the bachelor's degree. In addition to having written procedures for taking the candidacy/qualifier exam, departments must also have procedures regarding providing student feedback for candidacy and/or qualifier exams. Note: See Program Level Exams Appeal Policy.

Comprehensive Exam

This examination is given, usually upon the candidate's completion of course work, to determine the student's progress in the degree field and fields related to it and the student's likelihood of success in his/her research-dissertation phase. The examination may be written, oral, or both and is not necessarily limited to areas in which the candidate has taken course work. In addition to having written procedures for taking the comprehensive exam, departments must also have written procedures regarding providing feedback for comprehensive exams. Note: See Program Level Exams Appeal Policy.

Continuous Graduate Registration For Dissertation and Thesis

Following the completion of course work, including internship or practicum (excluding comprehensive exam or qualifiers), all doctoral and master's thesis students must be continuously enrolled for at least one credit of dissertation or thesis each semester (fall and

spring) annually, through the graduation of the student or until the time limit is exceeded.

There is no separation between completions of course work, internship, or practicum and initiation of dissertation or thesis credit registration. Once the student has registered for the number of dissertation credits required by the program of study (typically nine or twelve), or the number of thesis credits required by their program of study (typically three to six), she or he must register for one dissertation or one thesis credit each semester (fall and spring) annually through the graduation of the student or until the time limit is exceeded (See Time Limitation Policy for doctoral or master's students). For this period, the student will be considered a full-time doctoral or master's student.

All dissertation and thesis credits will be pass/fail credits. Students must complete the minimum number of dissertation or master's thesis credits required by their program, but may take additional dissertation or thesis credits as necessary to comply with the Continuous Graduate Registration for Dissertation and Thesis policy.

Until the dissertation or thesis is successfully defended, a grade of "R" will be assigned to each registered credit. Upon successful completion of the dissertation or thesis, the grade assigned by the dissertation or thesis director will apply to all registered dissertation or thesis credits. Students must pay tuition and mandatory university fees for all credits (equal to the part-time mandatory fees), and may choose to pay the Wellness Fee.

Course Auditing

Auditing is not permitted in a graduate course unless the student has been admitted to the School of Graduate Studies and Research, has received permission to audit from the course's instructor, and has been approved for course enrollment by the dean of the School of Graduate Studies and Research.

Auditors must pay normal tuition and related fees. An auditor will, with permission from the instructor, participate in class discussion, do practicum work, take examinations, and share generally in the privileges of a class member. If the student completes all course requirements, an "audit" notation is posted to the student's academic record. No student who is required to carry a certain number of credits may count among those credits the credit for an audited course.

Course Deactivation Policy

Graduate courses that have not been taught within the past six (6) years will be automatically deactivated. They will still be officially approved courses, but not appear in the Graduate Catalog. The SGSR will notify programs of courses that have not been taught in five (5) years that they have one year to teach the class before automatic deactivation. This will help alleviate the "false advertising" issue and reduce the number of current students who feel misled by this.

The policy will be phased in by alerting all programs that have courses not taught in five or more years that they have one year to teach the class before automatic deactivation. Note: Please see Course Deletion Policy.

Course Deletion Policy

Graduate courses that have not been taught in seven years and have been deactivated (See Course Deactivation policy) will be deleted. Graduate courses exempt from this policy include; Thesis, Dissertations, Special Topic courses, Independent Seminar/Study, and Internship.

Course Numbering

All dual-level courses, open to enrollment by both graduate and qualified undergraduate students, carry 500-599 course numbers; all courses open only to graduate students carry 600-series and above numbers. The number of 500-599 course credits applicable to a degree program shall be a maximum of 50% of the credits required for that degree.

600: Masters level only

700: Primarily masters but can be dual-level with doctoral courses (700/800 dual listed)

800: Primarily doctoral courses but can be dual-level with masters courses (700/800 dual listed)

900: Doctoral courses only.

Course Overlap in Degree Programs

With departmental and School of Graduate Studies and Research approval, a student may use the same course to count in two different IUP graduate degree programs, if the course meets the published graduation requirements in both programs.

However, the number of overlap credits counted toward a second graduate degree will be limited to a maximum of one third (1/3) of the credits, if department approved, in the second graduate degree program. Should credits be requested for use in a second degree program, they will be treated as transfer credits and will therefore count toward the one third (1/3) credit maximum permitted by the Transfer Credit Policy.

In order to receive the doctorate as a second degree, doctoral students using credits earned in a previous IUP graduate degree program must meet the minimum doctoral degree credit requirement of 60 graduate credits earned beyond the bachelor's degree, exclusive of dissertation credits and course overlap credits.

Course Repeat Policy

No graduate credit is given for "F" grades, and graduate grading policy does not permit "D" grades. Students may repeat "C" or "F" grades according to the following policy:

- Only one course may be repeated, for grade replacement, for each graduate degree program the student attempts or completes.
- This one course may be repeated only one time.
- The most recent grade (regardless of whether it is higher or lower) will be the grade used for the GPA calculation.

However, all attempts and the original grade(s) earned will continue to appear on the graduate transcript.

Course Withdrawal Policy

During the fall and spring semesters, graduate students may withdraw from a graduate course

during the first two-thirds of the semester without prejudice and with the grade of “W” by using URSA.

Students withdrawing from courses may find their financial aid for that particular semester affected. Prior to withdrawing from courses, students are encouraged to check with the Office of the Bursar and/or the Office of Financial Aid to learn if/how this action may impact them.

Following the close of the established withdrawal period, the student will need to petition the dean of the School of Graduate Studies and Research for approval of a request for an exceptional withdrawal. The request must first be endorsed by the course instructor and the student’s department chair or graduate studies coordinator, in that order. Requests for course withdrawal after the published date will be considered only in cases that are unexpected and reflect exceptional circumstances. Students may be required to provide documentation of the catastrophic circumstances preventing them from completing the semester.

Note: (Unofficial Withdrawal) Federal Title IV student aid recipients who earn a 0.00 QPA at the end of a semester in which they receive federal student aid will be reviewed to determine whether or not they actually completed the semester. Students with a 0.00 that is attributed to “F”, “I”, or “*” grades will be required to provide documentation to the Financial Aid Office regarding their last date of academically related activity. Based on that date, federal student aid may need to be adjusted.

Credit Requirement

A minimum of 60 graduate semester credits, exclusive of dissertation credits, must be earned beyond the bachelor’s degree for any of the doctorates offered at IUP.

Degree Candidacy

Each student admitted to a doctoral program must receive doctoral degree candidacy after completing nine to fifteen graduate credits (specified by program) beyond the master’s degree. Some departments have additional requirements for candidacy; consult the program coordinator for a listing of these requirements. The student’s minimum grade point average for degree candidacy may be set higher, by the program’s sponsoring department, than the School of Graduate Studies and Research requirement, but in no case may it be lower.

Dissertation

A dissertation is required of all doctoral candidates and must demonstrate the candidate’s mastery of his/her research and reflect the results of an original investigation in the principal field of study. The goal should be to make a definite original contribution to knowledge in the field.

Dissertation/Thesis Approval Process

Upon acceptance of the dissertation/thesis by the candidate’s advisor, the candidate must follow procedures acceptable to his/her department and dean in providing copies for review by the dissertation/thesis committee. The candidate shall request a formal meeting of the dissertation/thesis committee, at a time convenient to all members, to defend the dissertation/thesis and secure dissertation/thesis approval. A draft electronic copy must be

submitted to the Thesis/Dissertation Office in the School of Graduate Studies and Research for compliance review at least two weeks prior to final submission. The dissertation/thesis must be approved in writing by each member of the committee, as well as by the dean of the School of Graduate Studies and Research.

Dissertation/Thesis Committee

The dissertation/thesis committee may supervise several aspects of the student's degree program from the point at which he/she is admitted to candidacy through defense of the dissertation/thesis. Students must consult with the sponsoring department to determine which supervisory roles apply. The committee may approve the student's plan of study; arrange for the candidacy examination; arrange for the comprehensive examination; and oversee the candidate's general supervision related to research, the dissertation/thesis, and the general meeting of degree requirements.

Committees must be comprised of at least three members. For doctoral committees, the chair must have graduate teaching eligibility at the doctoral level. The remaining committee members must have graduate teaching eligibility at the masters level. For masters committees, only the chair must have masters level graduate teaching eligibility. Students who wish to have a committee member that is outside the faculty bargaining unit ("outside readers") must contact their graduate coordinator and the School of Graduate Studies and Research Thesis/Dissertation Office for guidance.

Dual Enrollment in Graduate Programs

Students may apply and be admitted to two master's degree programs simultaneously. Up to 50% of the credits in one degree may be shared with the other degree, provided that 1) the courses are required courses or electives in both programs OR 2) the courses are accepted as Substitute courses by the graduate coordinator of the program.

Dual Level Courses

The number of 500-599 course credits applicable to a degree program is a maximum of 50 percent of the credits required for that degree. Some programs may call for less than 50 percent. Students should confirm this requirement with their advisors. Graduate students who enroll in dual-level courses should be aware that dual-level courses commonly impose greater obligations on graduate students than on undergraduate students taking the same courses.

Early Admission to Graduate Program Policy

Applicants must have at least a 3.25 GPA to be considered for early admission and must have completed at least 15 credit hours in their undergraduate major. Students may apply in the semester in which they will earn their 90th credit.

Applicants will be considered according to the existing criteria of each graduate program, with the single exception that they need not have finished their undergraduate degree. Students are allowed to earn up to 40 percent of graduate program credits (rounded to the nearest whole number) that may be applied to satisfy the requirements for the undergraduate degree. Upon completion of their undergraduate degree, students will automatically become graduate students if they maintain a 3.0 undergraduate G.P.A., are in good academic standing as a graduate

student, and fulfill any undergraduate requirements specified by the department and listed in the admissions letter.

Finalizing the Dissertation/Thesis

Once the dissertation/thesis has been approved by the committee and reviewed for compliance by the staff of the Thesis/Dissertation Office, the PDF file of the dissertation/thesis is then submitted electronically to ProQuest Information and Learning. The document will then be sent to the graduate dean for final review and approval. Guidelines and forms for electronic submission of the document are available online.

Grade Appeal Policy

Grade Review Policy

If a student disagrees with the evaluation of his/her work by the instructor but has no basis for a charge of “discrimination” or “capricious evaluation” or “error,” the student should discuss the matter directly with the instructor, and if unsatisfied, with the department chairperson, and if still unsatisfied, with the dean of the college in which the course was offered. In such cases, the decision of the instructor shall be final.

If a student believes that an improper grade has been assigned, an appeal may be filed on the following grounds:

1. **Discrimination:** On the basis of race, religion, national origin, sex, age, ancestry, handicapped status, affectional or lifestyle preference, or political affiliation.
2. **Capricious Evaluation:** Significant and unwarranted deviation from grading procedures and course outlines set at the beginning of the course (ordinarily in a written statement during the first week of the course) or grade assigned arbitrarily on the basis of whim or impulse. The student may not claim capriciousness if he or she disagrees with the subjective professional evaluation of the instructor.
3. **Error:** Demonstrable, objective determination that a mathematical or clerical error resulted in the entry of an incorrect grade.

Procedures of Appeal

Level I: Informal Resolution

Every effort should be made to resolve the disagreement at Level I. The student must first seek a resolution to the disagreement with the instructor either in person or in writing. If the student is not satisfied with the results, the student must then speak with the chairperson of the department that offers the course. If still unsatisfied, the student must discuss the matter with the dean of the college in which the course is offered. A member of the Graduate Student Assembly may accompany and advise the student during the Level I procedures. Only after all attempts for resolution at Level I have been exhausted may the student initiate Level II.

Level II: Appeal Screening

1. **Composition:** Each year there shall be appointed a Grade Appeals Committee to determine the existence of the substantive basis for appeal. The committee will be composed of seven voting members: three faculty members appointed by APSCUF, two members elected by and from the Senate University-Wide Graduate Committee (one faculty member and one

student), the dean of the School of Graduate Studies and Research or his or her designee, and one student appointed by the Graduate Student Assembly. A quorum consists of a majority of the committee. To take action, a majority of those present must be faculty members. If a quorum of the Level II committee is not available to meet within the designated time limits, the Provost's Office will seek additional members from the appointing bodies. If these bodies are unable to respond in a timely manner, the Provost's Office may select additional members from the appropriate groups.

2. Procedure to Initiate Appeal: To initiate Level II of the appeal, the student must file an appeal form with the Provost's Office. This form must be filed within sixty (60) calendar days of the beginning of the semester immediately following the semester in which the grade was received. The Provost's Office may extend the sixty-day limit only in unusual circumstances when equity demands it and when the student's own procrastination or misunderstanding did not substantially contribute to the delay. (Note: Grade appeals will not generally be processed during the summer. Therefore, the appeal of any grade received in the spring or summer sessions normally will be processed in the fall. A review will be scheduled in the summer only when the student's academic eligibility is jeopardized by the grade in question or when the student is preparing to graduate.) The Provost's Office will notify the appropriate dean, department chairperson, faculty member, and the president of the Graduate Student Assembly of the student's initiation of the Level II process.
3. Procedure to Process Appeal: The student will be expected to submit written documentation of his/her complaint, and the faculty member will be expected to submit in writing the course grading procedure and any other pertinent information. Appeals based on discrimination will be reviewed according to current standards of nondiscriminatory action. Appeals based on capriciousness will be reviewed in light of the faculty member's announced evaluation and grading system. The committee will review the materials to deny or confirm appeal continuance. Denial of appeal continuance must be by a negative vote of four members of the committee. This committee will inform the Provost's Office of its findings. Within five (5) class days of the receipt of the committee's report, the provost or designee will notify the student and the faculty member of the findings. If the basis for appeal is determined to be substantive, the provost or designee will schedule a Grade Review Panel within fifteen (15) class days to be convened prior to the conclusion of the semester.

Level III: Appeal Review

1. Composition: The Grade Review Panel will consist of five voting members: the dean's designee (from the School of Graduate Studies and Research) and four faculty members. The Graduate Student Assembly Executive Committee designee may advise as requested by the student. The affirmative action officer will advise in appeals based on discrimination. The panel will be constituted from the Grade Review Pool by random selection. The panel chairperson will be elected by and from the panel before each review.
2. Membership: The Grade Review Pool will be established in the spring term to serve for the following academic year. Using random selection methods, the pool and rotational order within the pool will be established by the Provost's Office. A pool of three deans or associate deans and twelve full-time faculty members will be maintained. In establishing the membership for each review panel, prior to each review the names of those

designated as primary members of the specific panel and available as alternates will be supplied to all parties involved. A panel member may request (to the provost or designee) disqualification due to a conflict of interest. The student and the faculty member may eliminate names in proportion to the composition of the panel. Each may eliminate only one dean/associate dean and four faculty members. The instructor and the student will be supplied a list of all primary and secondary pool members. The opportunity to disqualify panel members will take place only once. Resulting vacancies will be filled from the appropriate pool of alternates so that the panel will be composed of one dean/associate dean and four faculty members. If through self-disqualification and challenges a panel cannot be constituted from the pool, then the Office of the Provost will supplement the pool using appropriate random selection methods.

3. Procedure:

- a. Both the student and the instructor will have the right to appear before the panel, present witnesses, and offer evidence. In addition to those specified in Level III, Section A, each may also bring one observer, with whom he or she may consult but who may not participate in the review.
- b. The panel shall determine its rules of order for internal operation. After hearing the evidence brought forth, the panel will privately deliberate and render a decision. If the grade appeal is upheld, the panel will constitute a committee of three appropriate faculty members (knowledgeable in the discipline but excluding the faculty member against whom the complaint was lodged), who will review the student's work and recommend the appropriate grade or suitable remedy. The panel will incorporate this information in its determination, which it then forwards to the Provost's Office for implementation, ordinarily within thirty days. The Provost's Office will initiate the processing of grade changes resulting from Level III decisions.
- c. The written report sent to the Provost's Office will state whether the student's appeal is upheld or denied; if upheld, the committee's evaluation and remedy will be included. Both the student and the faculty member have the right to review all documents related to the appeal. All documents supporting the report will be sealed and kept only as long as necessary (normally one year) to ensure the appropriate action is taken before they are destroyed or returned to the individual presenting the evidence.

Ancillary Provisions

1. Continuing Rights: This appeal does not supplant any legal rights afforded by the Commonwealth of Pennsylvania and/or the government of the United States. Nothing in this policy abrogates or modifies any provisions of or rights under the Collective Bargaining Agreement.
2. Discrimination in this policy generally means unlawful discrimination: To the extent that any form of discrimination identified in this definition is not unlawful discrimination, this definition shall not be taken to create a cause of appeal against the university. In such cases, the final appeal procedures stated in this policy will be final and binding on the student.
3. Tenure and Promotion Committee Membership on Grade Appeals Committees: Members of the university-wide tenure and promotion committees may not serve concurrently on

grade appeals committees.

4. Support Mechanism: The Provost's Office, after consultation with the Senate University-Wide Graduate Committee and APSCUF, will be responsible for identifying a pool of at least ten faculty members well versed in the preparation of grade appeals who will be available upon request to help students or faculty prepare documentation for the grade appeals process.
5. Training/Support: The Provost's Office will offer yearly information sessions/workshops to assist deans, chairs, grade appeals panel/committee members, and members of the Graduate Student Assembly/University-Wide Graduate Curriculum Committee in identifying issues and to provide guidance for the resolution of grade appeals.
6. Dissemination of Grade Appeal Information: The Provost's Office will annually report to the university community a statistical summary of grade appeal data that does not compromise confidentiality including 1) the number of appeals filed, 2) the resolutions at levels II and III, and 3) the final implementation of Level III decisions.
7. Appeals on Procedural Grounds: Decisions may not be challenged merely because the Provost's Office fails to comply with Ancillary Provisions D, E, or F above.
8. Intentional Misrepresentation: Intentional misrepresentation in the filing of grade appeals by students will be referred to the university judicial system for students. Intentional misrepresentation by faculty in the grade appeals process will be referred to the Provost's Office.
9. Confidentiality: Students, faculty, administrators, and staff involved in processing and hearing grade appeals must respect the confidentiality of all aspects of these proceedings. Those breaching confidentiality subject themselves to possible disciplinary action. This shall not abridge the First Amendment rights of the student appellant nor the instructor against whom the appeal has been filed.
10. Intended Purpose: The grade appeal procedures are designed simply as a means to resolve differences between students and faculty related to grading. Unless there is intentional misrepresentation, the results of a grade appeal may not be used for disciplinary action of personnel.
11. Faculty Compensation: If a Review Panel (hearing) is scheduled at a time in the summer when any faculty member involved is not under contract, the faculty member will be compensated under terms mutually agreed upon at Meet-and-Discuss.
12. Review of Policy: Every five years, the Senate University-Wide Graduate Committee will review, in consultation with the campus community, the operation of the Grade Appeals Policy and recommend changes deemed appropriate.

*Amendment: Amendments may be implemented upon concurrence by University Senate, APSCUF Representative Council, and Meet-and-Discuss.

Note: In the amendment process above, specification of University Senate implies the Council of Trustees' role in approving Senate actions and recognizes the Council of Trustees' final action to change policy.

Grading System

After each semester or session, a grade report will be available to each student by signing in to MyIUP (my.iup.edu).

Grades and Quality Points

In the grading system, the following grades are used in reporting the standing of students at the end of each semester or session:

Grade Description Quality Points

A	Excellent	4 quality points/credit
B	Good	3 quality points/credit
C	Average	2 quality points/credit
F	Fail	0 quality points/credit
N	Non-Participation Fail	0 quality points/credit
P	Pass	0 quality points/credit (graduate thesis/dissertation only) [#]

[#]NOTE: Students admitted Fall 2017 and after earn P or F for graduate thesis/dissertation only. Students admitted prior to Fall 2017 follow previous grading system for thesis/dissertation.

Other Designations (carrying no quality points):

AUD	Audited Course
I	Incomplete—For more information, see policy explanation.
L	Late Grade/Continuing Course—For more information, see policy explanation.
Q	Total Semester Withdrawal—Used before 2002 when a student had totally and officially withdrawn from the university for a given semester
R	Research in progress (graduate thesis/dissertation only)
TR	Transfer
W	Withdrawal—For more information, see policy explanation.
*	Grade not reported by instructor. No grade information was reported by the end of the normal grading period.

Grades followed by the following designations indicate the application of a policy that has amended the student's cumulative grade point average:

.	Institutional Credit (credit counts toward enrollment status but does not count toward graduation or in GPA calculation)
*	Fresh Start (see policy explanation)
:	Extended Credit (graduate thesis/dissertation only for students admitted prior to Fall 2017)

No "D" grade is recognized in IUP graduate work but may be earned by a graduate student enrolled in an undergraduate course.

The designation of "I" is used to record work, which so far as covered, is of passing grade but is incomplete because of personal illness or other unavoidable reason. Changes of grade to convert designations of "I" must be received in the Office of the Registrar no later than the final day of classes in the next regular (fall/spring) semester after the designation was assigned. If the faculty

member does not change the “I” designation using a Change of Grade Form, it will be converted to an F.

In rare circumstances, the student and/or faculty member may ask for an extension of the deadline. In this event, the dean of the college in which the course is taught may approve the extension, providing the faculty member concurs. To monitor designations, the registrar shall submit to department chairs routine semester reports of outstanding “I” designations.

A faculty member assigning the “I” designation must complete an Incomplete Grade Form, indicating the work to be completed, deadlines for completion (it is not necessary to permit the maximum allowable time), and guidelines to establish a final grade. Copies of the completed form will be sent to the department chairperson, the dean of the college in which the course was taught, and the student receiving the “I” designation.

Upon completion of the course work, or notification by the student that the course work will not be completed, the faculty member must submit a Change of Grade Form to indicate the final course grade.

The “R” notation pertains only to thesis and dissertation research credits when such research is in progress as a semester or summer session ends. All “R” grades are replaced by the grade eventually assigned when the research is completed. The “W” notation applies to certain withdrawals from courses. Withdrawals from the university and discrete course withdrawals are discussed in other sections of this catalog. Note that an “F” is entered in the student’s permanent academic record if a withdrawal of either type has not been processed in accordance with established procedures.

The grade of “L” is appropriate for cases in which the student’s work is expected to extend beyond a given semester/session. “L” grades may be used for an internship, practicum, field experience course, workshops, and independent studies that, by design, extend beyond the normal end of the grading period. Unless an exemption is obtained from the dean of the college in which the grade was given, an “L” grade unresolved at the end of one year will be converted to an “F.” If a student withdraws from the university before the year has elapsed, outstanding “L” grades will be converted to “W” grades. If, for a graduate student, the maximum number of years allotted to complete the graduate degree runs out before the year has elapsed, outstanding “L” grades will be converted to “W” grades.

Graduate Course Scheduling by Undergraduates

IUP undergraduate students with an academic grade point average of at least 2.6 who are within thirty-two semester hours of graduation are permitted, after receiving appropriate approvals, to take up to six semester hours of graduate work whether or not they have applied for acceptance into an IUP graduate program.

Graduate hours so earned have no necessary bearing upon undergraduate degree requirements, and no assurance is given toward future IUP graduate program admission. If these credits are approved toward a graduate degree program, they will be treated as transfer credits.

Note: Graduate credits taken by an undergraduate student may not be reviewed for transfer if they were counted toward the undergraduate degree. Students admitted through Early Admission to Graduate Programs Policy are exempted from this requirement.

Graduate Fresh Start Policy

A graduate student, who has been separated from the university as a result of academic dismissal, including time-to-degree dismissal, may only apply for readmission to the University if the student has been separated from the University for a minimum of two calendar years (24 consecutive months) from the date of dismissal. The request to be considered for readmission to the University must be into a graduate program, and readmission to the program from which the student was dismissed may not be sought. A student dismissed as a result of an academic integrity violation is barred from utilizing the Graduate Fresh Start Policy to request readmission.

Conditions for a Graduate Fresh Start Application

A graduate student may apply for a Graduate Fresh Start only if he/she meets all of the following conditions:

- he/she was academically dismissed, including time-to-degree dismissal from an IUP graduate program;
- he/she has been separated from the university for a minimum of two calendar years (24 consecutive months);
- he/she applies for readmission consideration to a graduate program at IUP, excluding the program from which the student was academically dismissed.

The graduate student must apply to the desired program through the standard Admissions process. Having reviewed the prior and intervening factors for evidence of potential for improved academic success, the program coordinator, after departmental review, may recommend to the dean of Graduate Studies and Research that the student be readmitted to the University and admitted to the program.

The dean's decision is final and is not subject to appeal.

Conditions for a Graduate Fresh Start Record

All credits and grades for IUP course work taken before readmission under this Graduate Fresh Start Policy shall remain on the transcript. Upon readmission, a new cumulative (GPA) is established based on credits and grades earned from the date of readmission. Individuals may seek readmission to the University though the provisions of this policy only once.

Prior Record

The student's graduate record will be identified as a Graduate Fresh Start. No graduate credits earned from the program in which the student was dismissed are permitted to be transferred to the Graduate Fresh Start sought degree. Any other transfer credits must meet the IUP Transfer Credit Policy.

Students seeking a degree under the Graduate Fresh Start are not permitted to repeat a previously taken course from the program in which the student was dismissed and have it count towards improving the previous CGPA that was prior to readmission. Any course repeat(s) will be

counted as a course taken under the Graduate Fresh Start and applied solely to the new degree sought and new cumulative GPA.

Academic Standards

A student who is readmitted under the provisions of the Graduate Fresh Start Policy shall be required to meet current degree requirements. He/she shall be academically reviewed under the policies published in the academic catalog at the time of readmission. Students readmitted to the University under this policy and who were dismissed initially by exceeding time-to-degree requirements may not be granted extensions of time-to-degree requirements.

Graduate Residency Requirements

1. For master's students, at least 2/3 of the credits meeting program requirements must be taken from the University offering the degree.
2. Doctoral residency requirements are determined at the program level.

Note that these set the minimum number of credits that must be taken "in residence" and that universities can limit the number of hours that will be allowed to transfer into a graduate program.

Active-duty service members who are graduate students will be handled on a case by case basis.

Exceptions are to be approved by the Office of the Chancellor's Division of Academic and Student Affairs.

Independent Study

(see Special Credits)

Internship Policy

To qualify for a graduate internship appointment, the graduate student must have a minimum of twelve IUP graduate credits earned and a minimum 3.0 grade point average, and must meet departmental internship criteria.

No more than six internship credits may apply to a graduate degree unless written approval of the student's department chair or graduate coordinator and the dean of the School of Graduate Studies and Research (in that order) is obtained. Continuation in an internship experience by a given graduate student is contingent upon the student's maintenance of satisfactory performance in all aspects of his/her degree program. Programmatic exceptions to the foregoing policy can be made only with the approval of the Graduate Committee.

Involuntary Withdrawal Policy

1. Purpose

The purpose of this policy is to provide a procedure for determining whether an identified student's behavior poses a Direct Threat (as defined herein) and for responding to such behavior. Rarely does student behavior pose a Direct Threat. However, involuntary withdrawal may be appropriate when:

- the student displays behavior which is not prohibited by and/or could not be adjudicated by the Student Behavior Regulations or the Academic Integrity Policy, but that nonetheless poses a Direct Threat; and
- the student demonstrates a risk of repeated display of such behavior.

2. Policy

In the absence of other reasonable means or university procedures available for addressing a student's behavior which poses a Direct Threat, the university will conduct an individualized assessment of the student behavior and circumstances related to the observed behavior of concern and, if appropriate, implement the involuntary, total withdrawal of the identified student from the university. The student may appeal an involuntary withdrawal decision, or may seek reenrollment to the university at a later time, in accordance with the guidelines and procedures articulated below. The decision regarding an appeal or reenrollment request will be considered on the basis of whether the student continues to pose a Direct Threat. The policy will be applied in a nondiscriminatory manner, and decisions will be based on consideration of the student's conduct, actions, and statements, not on knowledge or belief that the student has a disability.

3. Definitions

A. Direct Threat

Behavior which poses:

- significant risk to the health or safety of others, or
- significant risk of damage to University property, or
- substantial disruption to the activities or education of other students.

B. Significant Risk

Behavior which has a high probability (not just a slightly increased, speculative, or remote risk) of substantial harm to the university community, given information concerning the behavior that is available at the time of consideration.

C. Substantial Disruption

Behavior which continually and considerably interferes with other students' participation in academic, work, extracurricular, housing/residence life or other university-related activities.

4. Procedures

A. Review Process

1. When made aware of an identified student whose behavior could warrant involuntary withdrawal, the vice president for Student Affairs (or designee) will convene and oversee an Involuntary Withdrawal Review Team to conduct an individualized assessment of the student behavior and circumstances related to the observed behavior of concern, and advise him/her whether or not a Direct Threat exists. Members of this team will include a representative from the Health Center, the Counseling Center, Disability Support Services, and the student's academic dean (or designee). Depending on the nature of a particular case, and in accordance with FERPA and other relevant laws, other individuals who can assist in evaluating the potential risk posed by the student's behavior may be identified to advise the vice president and Review Team, including professionals qualified to interpret the information available for consideration.

The goal of the vice president and Review Team will be to ascertain whether the student's behavior poses a Direct Threat. Factors to consider may include:

- the nature, duration, and severity of the risk of harm;
 - the likelihood that the potential harm will occur;
 - if the student asserts to have a legally protected disability entitled to reasonable accommodation, consideration should be given to whether reasonable modification of university policies, practices, and procedures would sufficiently mitigate the risk.
2. The vice president and Review Team may request to review educational records and/or to consult with various university community members or others who may be knowledgeable of the student and/or the behavior of concern.
 3. The vice president and Review Team may request that the student take part in a medical/psychological evaluation. In such a case, the vice president and Review Team will identify a qualified and licensed health professional who is independent from the university to conduct the evaluation. The university will be responsible for the fees associated with this evaluation.
 4. The vice president and Review Team will request a personal meeting(s) with the student. Although it is highly desirable that the student choose to attend such a meeting(s), the review process may proceed if s/he does not attend. At the meeting(s), the vice president and Review Team will present and discuss the information that is available for consideration. The student may choose to have an advocate accompany and take part with him/her in the meeting(s).
 5. Based upon the Review Team's assessment, including consultation with professionals qualified to interpret the information available for consideration, the vice president may conclude that a Direct Threat exists and, if so, will determine an appropriate next step, which may entail involuntary, total withdrawal of the student from the university, but would not preclude other actions depending on the particular situation.
 6. The review decision will be communicated by the vice president to the student and will provide the primary information that led to the decision. Any conditions for later reenrollment will also be communicated at that time. The decision and related information will be communicated in writing to the student, and may be additionally communicated in other forms if the situation permits.
 7. At any time prior to conclusion of the review process, the student may withdraw voluntarily.

B. Appeal Process

1. The decision of the vice president may be appealed in writing by the student to the IUP president.
2. An appeal must be filed within 90 calendar days after the decision of the vice president is communicated in writing to the student.
3. The president's decision on the appeal will be final and conclusive.
4. During the appeal process, the student will remain totally withdrawn from the university.

C. Reenrollment Process

1. An involuntarily withdrawn student may later request reenrollment to the university. A request must be made to the vice president for Student Affairs. In his/her request, the student should provide evidence that s/he would no longer pose a Direct Threat and that

any conditions for reenrollment have been met. Such student is responsible for any fees associated with treatment, activities, and/or evaluations that s/he has taken part in or obtained in an attempt to demonstrate appropriateness for reenrollment.

2. The vice president will convene and oversee the Involuntary Withdrawal Review Team regarding the reenrollment of the student.
3. The vice president and Review Team may request an updated, independent, university-obtained medical/psychological evaluation and/or request to meet with the student. The university will be responsible for the fees associated with this evaluation.
4. The decision of the vice president will be based on a determination of whether the student can return safely to the university community and no longer pose a Direct Threat.

D. Emergency Situation

At any time prior to the initiation or conclusion of the review process, the vice president may implement an interim involuntary withdrawal of the student from the university, should immediate action appear warranted. A review process, as outlined above, will occur as soon as reasonably possible to consider the interim decision.

Reasonable deviation from these procedures due to crisis and/or emergency situations will not invalidate the need for a review process and its subsequent decision.

5. Recision

This policy will not be rescinded or modified except by action of the IUP president, following consultation with the University Senate, and in accordance with University Senate By-Laws and Constitution.

6. Publications Statement

The IUP office of the Vice President for Student Affairs will publicize and transmit this policy to all members of the university community.

Military Graduate Credits and Experience Policy

Relevant military credits can be considered as graduate credits upon acceptance by the academic department/program and official approval by the School of Graduate Studies and Research.

Credit review is based on the Joint Services Transcript by the departments/programs to determine acceptance of military schooling and experience as graduate credits in place of specific equivalent required or elective courses, and approval from the School of Graduate Studies and Research.

To request credit consideration, the student must complete the Request for Military Credit Review form and follow the listed instructions. A military course, training or work experience description must accompany the request. The request must identify specific required or elective courses that would be the equivalent of the military credits being considered. An official Joint Services Transcript showing the earned credits must be provided with the request.

The request is reviewed by the academic department and the School of Graduate Studies and Research. After review, the student's program coordinator and the student are notified through IUP email whether the military credits are officially approved or not.

No more than 1/3 of the total degree program hours may be accepted in the form of military credits. If the student has military credits approved as graduate credits and the student has transfer credits approved from IUP and/or another institution, the combined total of the graduate credits and transfer credits cannot exceed 1/3 of the total program hours for the degree. If military credits are approved and accepted, only the credit, not the grade or the accompanying quality points will appear on the student's IUP transcript. Military credits approved and accepted for one program at IUP will not be posted to the student's transcript a second time for a second program.

Preparation and Training of Students Working with Human and/or Animal Subjects Policy

1. Purpose: To establish a policy requiring all IUP students engaged in human and/or animal subject studies to successfully complete training on the ethical treatment of human and/or animal subjects, as appropriate for their field of endeavor, prior to initiating their activities.
2. Scope: This policy shall apply to all IUP students who engage, or plan to engage, in systematic interaction with human and/or animal subjects that requires approval by the Institutional Review Board for the Protection of Human Subjects (IRB) or by the Institutional Animal Care and Use Committee (IACUC). This policy shall also apply to IUP students pursuing for-credit independent study, externships, internships, and clinical experiences as well as non-IUP students who wish to use IUP as a study site for projects for which IRB or IACUC-approval is required.
3. Objective: This policy seeks to help ensure that students understand their obligations to protect their human and/or animal subjects and to protect the integrity of research and scholarship at IUP. To that end, this policy sets forth the requirement that all IUP students engaged in studies requiring IRB and/or IACUC approval must first successfully complete prescribed training on the ethical treatment of human and/or animal subjects, as appropriate for their endeavors, prior to initiating their activities.
4. Policy: It is the policy of IUP to foster an academic environment that encourages ethical conduct in all research and scholarship. To this end, IUP shall require that all students who engage, or plan to engage, in systematic interaction with human and/or animal subjects that requires approval by the IRB and/or the IACUC first complete ethical training prior to the initiation of their activities. It is further the policy of IUP that non-IUP students who wish to use IUP as a study site for their IRB or IACUC-approved projects must also complete IUP's prescribed ethical training prior to the initiation of their activities at IUP.
5. Definitions: Institutional Review Board for the Protection of Human Subjects (IRB): the regulatory body of IUP that is responsible for the review of research that involves human participants.

Institutional Animal Care and Use Committee (IACUC): the regulatory body of IUP charged with ensuring compliance with federal regulations concerning the use and welfare of animals in teaching and research.

6. Responsibilities: It is the responsibility of students to inquire with their supervisors, the IRB chair, and/or the IACUC chair to determine if IRB and/or IACUC approval is needed for the planned activities. If such approval is needed, it is the responsibility of the student to complete the prescribed ethics training prior to submission of their research protocol to the IRB/IACUC.

It is the responsibility of the School of Graduate Studies and Research to make prescribed ethics training available to students. Such training will be available in an on-line format, unless the student is conducting externally-sponsored research for which the external (non-IUP) sponsor requires face-to-face training. If face-to-face training is required by the external research sponsor, it will be the responsibility of the School of Graduate Studies and Research to provide such training.

It is the responsibility of the IRB and the IACUC to confirm that student-submitted protocols and faculty/staff-submitted protocols in which students will participate include copies of official on-line ethics training completion certificates for each student named on the protocol. If student participants on faculty/staff protocols have not been identified at the time of submission, it is the responsibility of the and/or IACUC to require in their protocol approval letters that names and completion certificates be forwarded as soon as student participants are identified and before the student participants begin work on the faculty/staff project.

It is the responsibility of the research supervisor to alert the IRB/IACUC chair if students not initially named on the IRB/IACUC approved protocol will be conducting research under the approved protocol and to provide copies of official on-line ethics training completion certificates for each of these added students. For supervisors overseeing classroom research meeting the IRB definition of such and/or outreach activities that have been deemed by the IRB/IACUC chairs to meet the standards for classroom research and/or outreach, the supervisor must complete prescribed ethics training. Completion of ethics training for students participating in classroom research and/or outreach activities is recommended but not required unless otherwise stated in writing by the IRB/IACUC chairs.

7. Procedures: Students shall consult with their supervisor, the IRB chair, and/or the IACUC chair, to determine if the planned studies require IRB and/or IACUC approval prior to initiating their activities.

If IRB and/or IACUC approval is required, students must complete a prescribed on-line ethics training program. Directions for accessing this training can be found on the IRB/IACUC protocol forms.

With respect to human subject studies training: Students conducting social, behavioral, and educational human subjects research must complete the on-line training for “Social, Behavioral, and Educational Research Investigators;” students conducting biomedical human subjects research must complete the on-line training for “Biomedical Research Investigators;” students conducting human subjects research for which there will be no direct contact with human subjects, for example archival, data, or laboratory specimen research, must complete the on-line training for “Research with Data or Laboratory Specimens Only;”

With respect to animal subject studies training: Students conducting animal subjects laboratory research must complete the on-line training for “Students Working with Animals;” and students conducting animal field research must complete the on-line training for “Field Researchers.” Upon successful completion of their training, students will receive an official completion certificate. This certificate must be attached to any IRB and/or IACUC protocol submitted for review on which the student is a named participant. If students not initially named on the IRB/IACUC approved protocol will be conducting activities under the approved protocol, an official completion certificate must be submitted via email to the IRB/IACUC chair, with the approved protocol log number, for each of these added students.

Failure to comply with the requirements of this policy may result in termination of study activities, inability to utilize collected data, and/or disciplinary hearings in accordance with the Undergraduate or Graduate Academic Integrity Policy and Procedures.

Additional recommended on-line training programs may be available, including responsible conduct of research, conflict of interest, biosafety/biosecurity, and export control, but are not required for students under this policy unless the student is conducting externally-sponsored studies for which the external (non-IUP) sponsor requires completion of such training programs.

Program Changes

To ensure their quality and relevance, graduate programs at IUP are subject to review and change by duly appointed and responsible university groups.

Because of this, the university recognizes that provisions must be made to prevent hardship to students already enrolled in programs if changes later occur in specific or general program requirements. Students affected by changes in programs, policies, and regulations are therefore given the option of following those requirements in effect when the student was first enrolled in the program or those in effect at the time of expected graduation. The student cannot, of course, combine chosen elements of the two. Should a question of rule interpretation arise with respect to changes, the student, the student’s advisor, or both should petition the dean of the School of Graduate Studies and Research for a decision about which requirements apply.

Program Level Exams Appeal Policy

Appeals for Program Level Exams such as, candidacy, comprehensive, or qualifying examinations, are made to the dean of the School of Graduate Studies and Research (SGSR) based on policy and/or procedural violations. The appeal can be based only on policy and/or procedural violations; and not simply on the outcome of the examination. Procedural violations would be cases in which the program /department failed to follow program/department and/or University policies and/or procedures relating to the administration and/or evaluation of the exam.

The appeal must be made in writing to the dean of the School of Graduate Studies and Research. Documentation of the policy(ies)/procedures in question must be provided, along with a detailed description of the alleged violation(s). All evidence supporting the alleged violation should also be provided. The student must submit the written appeal to the dean of the SGSR within 30 days of receipt of the outcome of the examination.

Upon receipt of the written appeal to the dean of the SGSR, the dean will conduct an investigation of the allegation, review the documentation and render a final decision which completes the appeal process. The final decision rendered by the dean of the SGSR may not be appealed.

If it is found that policy/and/or procedure has been violated, the dean of the SGSR will instruct the program/department to allow the student to retake the exam, fully adhering to policy and procedures. In the event of a finding in support of the student allegation, the reexamination may not be counted as one of the attempts permitted under the University or Department's Reexamination Policy.

Provisional Admission for International Graduate Applicants

Provisional admission is available for international students who meet all requirements for admission except proof of English language proficiency. However, each academic program may decide whether or not to accept students through provisional admission. In addition, the program decides whether or not to admit each individual candidate, based on the program's standards. Recommended minimum scores for provisional admission consideration are IELTS 5, TOEFL ITP 440, or TOEFL iBT 41. Some programs may have a higher minimum score for provisional admission; please check with the program coordinator.

Once granted, provisional admission is valid for one calendar year. Students who fail to meet the English proficiency requirement within one calendar year will be required to reapply. Provisionally admitted graduate students must enroll in the American Language Institute (ALI), where most students will take full-time English classes. Advanced students may be offered admission to the Graduate Bridge program, in which they may take up to six credits of IUP coursework in addition to ALI classes.

Students will remain in provisional status until they meet one of the following requirements:

1. Retake the TOEFL or IELTS and submit a score that fulfills the minimum program requirement (most programs: IELTS 6, TOEFL ITP 540, TOEFL iBT 76).
- or*
2. Successfully complete the Graduate Bridge program through the ALI. The ALI, along with the academic program, will determine whether a student is qualified to enter the Graduate Bridge program. Once accepted to the Graduate Bridge program, students must continue required coursework at the ALI with a 3.0 GPA or higher AND complete six credit hours of IUP coursework, as approved by the academic program, with a 3.0 GPA or higher.

When a student meets either of these requirements, that student is no longer provisionally admitted and will be transferred to regular graduate student status.

Reexamination Policy (Candidacy Examination: Comprehensive Examination)

No student is permitted a "third" examination without a recommendation to that effect from the degree program's sponsoring department per their adopted written procedures and the approval of the School of Graduate Studies and Research dean (or designee). Exceptions to this policy for programs can be made only with the approval of the School of Graduate Studies and Research.

Research Misconduct Policy

Purpose: To establish a policy and procedure, consistent with all regulations in 42 CFR 93, June 16, 2005, to respond to any allegations or apparent instances of fraud or misconduct in the carrying out of research by IUP faculty, managers, administrators, staff, and students.

Scope: The policy will cover all IUP faculty, managers, administrators, staff, and students who conduct research.

Objective: The policy for responding to allegations of research misconduct governs research conducted by IUP faculty, managers, administrators, staff, and students, defines misconduct in research, and establishes procedures for conducting an inquiry and, if necessary, an investigation into any allegation of possible misconduct. The policy also protects the integrity of the University's research mission. The procedures here constitute the entire fact-finding phases of all situations involving alleged research misconduct as defined by 42 CFR 93, June 16, 2005.

Policy: It is the policy of Indiana University of Pennsylvania to foster an academic environment that encourages ethical conduct in all scholarship. Moreover, IUP will deal forthrightly with possible misconduct associated with research. The University will conduct an inquiry and, if warranted by that inquiry, an investigation of any allegations of misconduct by IUP faculty, managers, administrators, staff, and students carrying out research projects. In the event that misconduct is determined by a preponderance of evidence, the President may take appropriate disciplinary action. Any actions that are proposed to be taken shall be consistent with the relevant Collective Bargaining Agreement (faculty, administrators, or staff) and the PASSHE Board of Governors' Policy 1983-01-A Merit Principles (managers). For students, findings of misconduct will be processed according to the Academic Integrity Policies and Procedures in the Undergraduate and Graduate Catalogs. It is also the policy of the University to maintain and widely promulgate its procedures for dealing with research misconduct.

Definition: "Misconduct" or "Research Misconduct" means fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results (see 42 CFR 93, June 16, 2005). Under IUP policy, Research Misconduct also includes failure to comply with Federal regulations for protection of researchers, human subjects, the public, or the welfare of laboratory animals. It does not include honest error, honest differences in interpretations or judgments about data, or disputes about authorship (see 42 CFR 93, June 16, 2005).

Responsibilities: It is the responsibility of the Research Integrity Officer (RIO) (Dean of the School of Graduate Studies and Research) to receive initial allegations from a complainant. A complaint must normally be filed within six years of the alleged incident to be considered under this policy. Absent unusual circumstances, within 20 days of receiving a complaint, the RIO should identify apparent instances of misconduct, determine whether an inquiry is warranted, and if so, initiate an inquiry into possible misconduct. In cases of honest error such as miscalculation or inadvertent omission of a citation, the RIO should dismiss the allegation. However, if the RIO believes that the evidence has the potential to show that (1) research misconduct, as defined in this policy, occurred; (2) the research misconduct is a significant departure from accepted

practices of the relevant research community; and (3) the respondent committed the research misconduct intentionally, knowingly, or recklessly, the RIO should initiate the inquiry.

Throughout the research misconduct proceeding, the RIO will review the situation to determine if there is any threat of harm to public health, including an immediate need to protect human or animal subjects, if federal funds and/or equipment are threatened, if research activities should be suspended, if there is reasonable indication of possible violations of civil or criminal law, if federal action is required to protect the interests of those involved in the research misconduct proceeding, if the research institution believes the research misconduct proceeding may be made public prematurely so that the US Department Health and Human Services (HHS) may take appropriate steps to safeguard evidence and protect the rights of those involved, and/or if the research community or public should be informed (42 CFR § 93.318, June 16, 2005). In the event of such a threat, the RIO will, in consultation with other institutional officials and the Department of Health and Human Services Office of Research Integrity, take appropriate interim action to protect against any such threat. Action might include additional monitoring of the research process and the handling of federal funds and equipment, reassignment of personnel or of the responsibility for handling the federal funds and equipment, additional review of research data and results, and/or delaying publication. When the complaint involves a supervisory relationship (for example, a student enrolled in a faculty member's course), special protections will be considered in protecting the complainant from possible retaliation. Special protections might include: delaying the proceeding where practicable (but not longer than 30 days from the date the faculty member submits the final grade for a student complainant), notifying the complainant of his or her rights under the graduate or undergraduate grade appeal policy and this policy, reassigning the complainant to another supervisor, and/or prohibiting the supervisor from terminating the employee or student worker.

The RIO must maintain sufficiently detailed documentation to permit later assessment of the outcome of the inquiry or investigation. Such records must be maintained by the RIO in a secure place for a period of at least seven years. Access to these records shall, upon request, be provided only to the respondent or designee, or to authorized granting agency personnel. If the investigation results in a finding of research misconduct, the President or his or her designee may also access the documentation for disciplinary purposes. The RIO must oversee the selection of qualified persons to serve on the inquiry and investigatory panels, following the guidelines in 42 CFR 93, June 16, 2005.

It is the responsibility of the President or his or her designee to take appropriate disciplinary action on any faculty member, manager, administrator, staff, or student who has been found to have engaged in research misconduct, according to the applicable contracts, side letters, or academic policies governing the respondent. If the RIO has been accused of research misconduct, then the President will appoint a substitute.

It is the responsibility of the complainant to make allegations in good faith.

It is the responsibility of all participants to maintain confidentiality and to cooperate during all phases of the misconduct proceedings. All participants acknowledge that disclosure of the identity of respondents and complainants in research misconduct proceedings is limited, to the

extent possible, to those who need to know, consistent with a thorough, competent, objective and fair research misconduct proceeding, and as allowed by law. At the same time, the panel conducting the research misconduct proceedings will afford respondents and complainants a prompt and thorough inquiry into the facts, and an opportunity to comment on allegations and the findings of the proceedings.

Additionally, all participants will take all reasonable and practical steps to protect the positions and reputations of good faith complainants, witnesses, and panel members, and to protect them from retaliation. Any alleged or apparent retaliation must be reported to the RIO, who shall review the matter and, as necessary and in consultation with the President, the Associate Vice President for Human Resources, and legal counsel, make all reasonable and practical efforts to counter any potential or actual retaliation and protect and restore the position and reputation of the person against whom the retaliation is+- directed. Any retaliatory actions may result in a separate disciplinary action.

At any point throughout the misconduct proceedings, the respondent may admit that research misconduct occurred and that he/she committed the research misconduct. With the advice of the RIO and/or other institutional officials, the President may terminate the institution's review of an allegation that has been admitted, if the institution's acceptance of the admission and any proposed settlement is approved by the US Department of Health and Human Services Office of Research Integrity.

Procedures

A. Inquiry

A1. Definition: An inquiry consists of information gathering and initial fact-finding to determine whether an allegation or apparent instance of misconduct warrants an investigation. An inquiry is not a formal hearing; its purpose is to separate cases of research misconduct deserving further investigation from frivolous, unjustified, or clearly mistaken allegations or apparent instances.

A2. Time Frame: An inquiry must be completed within 60 calendar days of its initiation unless circumstances warrant a longer period.

A3. Structure: The inquiry will be conducted by a three person panel appointed by the Research Integrity Officer (RIO). If the respondent is a faculty member, all three members will be faculty, chosen by the RIO in consultation with the Provost. At least one faculty member will be from the college, not necessarily from the department, of the respondent. If the respondent is not a faculty member, the RIO will choose two faculty members in consultation with the Provost, while the third member will have the same status (administrator, manager, staff, or student) as the respondent. If a faculty member declines to serve, another faculty member will be chosen.

In all cases, persons chosen to participate on the panel shall have no real or apparent conflict of interest bearing on the case in question. They should be unbiased and have relevant disciplinary expertise for judging the issues being raised.

If the respondent or the complainant believes that any or all of the panel members have a conflict of interest, the respondent or the complainant shall have the duty to state for the record all of the

reasons on which the assertion of conflict of interest is based. The panel member who is asserted to have a conflict of interest shall be given the opportunity to respond on the record. If the RIO determines that a real or perceived conflict of interest exists that could reasonably be expected to undermine the proceeding, the RIO will remove the person(s) with a conflict and appoint replacement(s) according to the process outlined above.

A4. Process: The misconduct inquiry procedure is not a method to settle disputes that arise between individuals but a process to determine if research misconduct may have taken place and whether an investigation is warranted.

When a complaint is received the complainant should be interviewed at the inquiry stage and given the transcript or recording of the interview for correction.

- If the RIO decides that an inquiry is not warranted, the complainant may appeal this decision to the Provost, who may then order the RIO to proceed with an inquiry.

Upon initiation of an inquiry, the RIO shall make a good faith effort to notify the respondent in writing, shall provide a written copy or summary of the complaint, and shall make available a copy of the Policy for Responding to Allegations of Research Misconduct. The RIO is responsible for immediately requesting controlled custody and inventory of records and evidence relevant to the allegation or case and sequestering these in a secure manner. University faculty members, managers, administrators, staff, and students including but not limited to the complainant and respondent, shall promptly provide upon request all available records and data identified as relevant, including primary research material. Copies of such records and data will be returned promptly, except for materials not amenable to copying. The respondent shall be granted supervised access to materials not amenable to copying throughout the duration of the inquiry and investigation process. All reasonable steps, consistent with time constraints and other obligations imposed by federal regulations, shall be taken to eliminate or minimize any disruption that might be created for ongoing research efforts by such requirements to produce documentation. The respondent will cooperate by providing material necessary to conduct the inquiry. If the respondent refuses to cooperate, the panel will file its report with the RIO and the Provost stating that fact, and the process will automatically proceed to the investigation stage. Failure to provide relevant records and data may subject an individual to a separate disciplinary investigation.

The RIO will prepare a charge for the first meeting of the inquiry panel that: sets forth the time for completion of the inquiry; describes the allegations and any related issues identified during the allegation assessment; states that the purpose of the inquiry is to conduct an initial review of the evidence, including the testimony of the respondent, complainant and key witnesses, to determine whether an investigation is warranted, not to determine whether research misconduct definitely occurred or who was responsible; states that an investigation is warranted if the panel determines: (1) there is a reasonable basis for concluding that the allegation falls within the definition of research misconduct defined in this policy; and, (2) the allegation may have substance, based on the panel's review during the inquiry; and informs the inquiry panel that they are responsible for preparing or directing the preparation of a written report of the inquiry that meets the requirements of this policy and 42 CFR § 93.309(a), June 16, 2005.

During the inquiry, the panel will examine relevant evidence and will call witnesses as necessary to determine whether an investigation is warranted. To the extent possible, each person involved in the investigation will be instructed that all matters involving the investigation shall be considered confidential. Each witness will receive a recording or transcript of his or her testimony and will be given the opportunity to make corrections before the summary appears in the final report. The respondent and/or complainant may choose to have someone present to advise him or her when he or she appears before the panel.

A5. Findings: At the conclusion of the inquiry, a written report shall be prepared that states what evidence was reviewed, summarizes relevant interviews, and includes the conclusions of the inquiry. The respondent shall be given a copy of the report that refers to IUP policy and 42 CFR 93, June 16, 2005, and any relevant subsections therein. The respondent shall have the opportunity to comment on the inquiry report, and the respondent's comments will be included with the final report. The complainant shall be notified whether the inquiry found that an investigation is warranted and will receive for comment the portions of the report that are relevant to the original complaint. If the inquiry takes longer than 60 days to complete, the record of the inquiry shall include documentation of the reasons for exceeding that time limit.

If after examining the evidence, the majority of the inquiry panel believes there is a reasonable basis for concluding that misconduct took place or may have taken place, the panel will recommend that the RIO initiate an investigation. If the panel determines that research misconduct has not occurred, the respondent shall be notified of that fact in writing in a timely manner. Copies of the notification will be forwarded to the University President, the Provost, and the dean of the respondent's college or supervisor.

If the allegation of the complainant was brought in good faith, the final report should state that fact to help ensure the good name of the complainant. However, if during the course of the inquiry, the panel becomes convinced that allegations have not been brought in good faith, the panel will notify the President and Provost in writing of that fact so that appropriate action may be taken.

When, on the basis of the initial inquiry, the inquiry panel determines that an investigation is warranted, the University President, Provost, and the dean of the respondent's college or other supervisor must be notified in writing with a copy of the report so that the investigatory process can begin. The respondent will also be notified in writing of the specifics of the complaint that is the basis of the investigation and also of any new allegations not addressed in the initial inquiry. If the respondent is a member of a collective bargaining unit, his or her union chapter President shall also be notified. In addition, if the research was sponsored by any external agency, that agency must be notified that an investigation involving possible misconduct will be initiated.

B. Investigation

B1. Definition: "Investigation" means the formal, confidential examination and evaluation of all relevant facts to determine if misconduct has occurred.

B2. Time Frame: An investigation must begin within 30 calendar days of the formal closing of the inquiry. An investigation must be completed within 120 calendar days of its initiation. This includes conducting the investigation, preparing the report of findings, making that report

available for comment by the respondent, and submitting the report to the appropriate granting agency. If the investigation panel determines that it will not be able to complete the investigation in 120 days, it must notify all participating individuals in writing of the reasons for the delay and must include an explanation for the delay in its final report.

B3. Structure: The investigation will be conducted by a five-member panel appointed by the RIO, who will serve on the panel as a sixth non-voting, ex-officio member for the purpose of acting as secretary.

If the respondent is a faculty member the investigation panel will be made up of two senior-level managers with relevant disciplinary experience, one of whom will serve as chair, and three University faculty members from outside of the PASSHE system. The faculty must have expertise in the research area associated with the alleged misconduct.

If the respondent is a manager, administrator, staff member, or student, the investigation panel will be made up of two senior-level managers, two faculty, and one manager, administrator, staff member, or student, respective to the status of the respondent. The two senior-level managers will consist of an academic dean, who will serve as chair of the panel, and a second manager to be named by the RIO. Two tenured faculty, one of whom is from outside of IUP, will be chosen to serve on the panel by the RIO. The faculty must have expertise in the research area associated with the alleged misconduct. Finally, the RIO will appoint an appropriately-trained manager, administrator, staff member, or student, respective to the status of the respondent, in consultation with the appropriate union, the Graduate Student Assembly, or the Student Government Association.

In all cases, persons chosen to participate on the panel shall have no real or apparent conflict of interest bearing on the case in question. They should be unbiased and have relevant disciplinary expertise for judging the issues being raised. If the respondent or the complainant believes that any or all of the panel members have a conflict of interest, the respondent or the complainant shall have the duty to state all of the reasons on which the assertion of conflict of interest is based for the record. The panel member who is asserted to have a conflict of interest shall be given the opportunity to respond on the record. If the Provost determines that a real or perceived conflict of interest exists that could reasonably be expected to undermine the proceeding, the Provost will remove the person(s) with a conflict and appoint replacement(s) according to the process outlined above.

B4. Process: For the purpose of holding meetings, all voting members of the panel must participate in the meeting, either in person or via teleconference. Both the respondent and the complainant must be afforded the opportunity to present information before the panel. The respondent and/or complainant may choose to have someone present to advise him or her when he or she appears before the panel.

At the first investigation panel meeting, the RIO will present a written charge to the panel that: includes the inquiry report; identifies the respondent; informs the panel that it must conduct the investigation as prescribed in this policy; defines research misconduct; informs the panel that it must evaluate the evidence and testimony to determine whether, based on a preponderance of the

evidence, research misconduct occurred and, if so, the type and extent of it and who was responsible; informs the panel that in order to determine that the respondent committed research misconduct it must find that a preponderance of the evidence establishes that: (1) research misconduct, as defined in this policy, occurred; (2) the research misconduct is a significant departure from accepted practices of the relevant research community; and (3) the respondent committed the research misconduct intentionally, knowingly, or recklessly; and informs the panel that it must prepare or direct the preparation of a written investigation report that meets the requirements of this policy and 42 CFR § 93.313, June 16, 2005.

The RIO will convene the first meeting of the investigation panel to review the charge, the inquiry report, and the prescribed procedures and standards for the conduct of the investigation, including the necessity for confidentiality and for developing a specific investigation plan. The investigation panel will be provided with a copy of this statement of policy and procedures and 42 CFR 93, June 16, 2005. The RIO will be available throughout the investigation to advise the panel as needed.

The investigation normally will include examination of all relevant documentation, including but not necessarily limited to relevant research data proposals, publications, correspondence, memoranda of telephone calls, and other records. Interviews must be conducted of each respondent, complainant, and any other available person who has been reasonably identified as having information regarding any relevant aspects of the investigation, including witnesses identified by the respondent. Interviews must be recorded or transcribed, and relevant portions provided to the interviewed party for correction and included as part of the investigatory file.

The panel may secure necessary and appropriate discipline-related expertise to carry out a thorough evaluation of the relevant evidence during the investigation.

At all times the panel must take precautions against real or apparent conflicts of interest on the part of those giving information or on the part of anyone who is in any way involved with the investigation.

If IUP plans to terminate an inquiry or an investigation for any reason without completing all relevant requirements and if federal funds are being used to support the research, a report of such planned termination, including a description of the reasons for such termination, shall be made to the appropriate granting agency, which will then decide whether further investigation should be undertaken.

B5. Findings: IUP has the burden of proof for making a finding of research misconduct. A finding of research misconduct must be proved by a preponderance of the evidence. After all the evidence has been reviewed and the respondent and complainant have been given an opportunity to respond to the evidence, the panel will prepare a draft report including the majority opinion and, if there is one, a minority opinion. This draft report will be provided to the respondent and the complainant, who may return comments on the draft report to the RIO within 30 days of receipt of the report. Concurrently, the respondent will have a copy of, or supervised access to, the evidence on which the report is based. These comments must be included and considered in the final report, which will be sent to the University President. The report will describe the

policies and procedures under which the investigation was conducted, how and from whom information was obtained relevant to the investigation, the findings, and the basis for the findings, and the recording or transcript of the statements and evidence provided by any relevant individual(s) involved in the investigation. The panel shall indicate whether or not it believes misconduct occurred, based on the three criteria described in section B4, process.

The panel shall submit its findings to the President and to the Provost. The respondent and the complainant shall also receive copies of the majority, and if there is one, the minority report. The RIO must provide the investigation report and other information as required to any external granting agencies that funded the research. The RIO will only send reports to agencies that funded the research, as well as the Department of Health and Human Services Office of Research Integrity if required.

Based on the evidence contained in the report(s), the President may initiate a disciplinary hearing in accordance with the relevant Collective Bargaining Agreement (faculty, administrators, or staff) or the PASSHE Board of Governors' Policy 1983-01-A Merit Principles (managers). Reports involving students may result in disciplinary action according to the graduate or undergraduate Academic Integrity Policies and Procedures.

Recision: Not applicable

Publications Statement: Not Applicable

Distribution: All Employees Annually (by the Dean of the School of Graduate Studies and Research) via the IUP Daily, via email with a link to the policy, and via the IUP Research Policies webpage.

Research Proposal

After the candidate has passed the comprehensive examination and has done extensive preliminary proposal research, he/she must present and defend a research proposal before the dissertation committee.

The candidate must follow departmental procedures for the proposal defense. The proposal must be found to be satisfactory by all members of the committee, and a Research Topic Approval Form must be fully signed and approved by the department, by the college, and by the School of Graduate Studies and Research before the candidate may proceed with the dissertation. The Thesis/Dissertation Manual outlines this procedure.

Schedule Adjustment and Drop/Add Policy

Students have the opportunity to make adjustments to their schedules before the end of the official Drop/Add period for the registered term. Please consult course schedules for appropriate dates and times.

At the beginning of each semester, a few days are set aside for dropping and adding courses. The Drop/Add period was established to permit enrolled students to make schedule adjustments, not to allow unregistered students to build schedules. Students using the Drop/Add period for anything other than schedule adjustments will be charged a late registration fee. Drop/Add dates are set at the beginning of each semester and can be found on the Academic Calendar.

Special Credits Policy

A graduate program offered by a department constitutes a rationally structured and well-defined body of information and techniques deemed appropriate to the discipline. Consequently, the number of special credits that each master's and doctoral candidate may count toward a degree is restricted.

Special credits are defined as those earned through Independent Study, Individualized Instruction, Special Topics courses, workshops, or any combination therein.

A master's degree candidate may submit for credit toward the degree no more than six (6) semester hours of special credits approved by the department offering the degree. Doctoral candidates may submit (a further) six semester hours of special credits beyond the master's or its equivalent if approved by the department offering the degree.

Note: Should a special credit offering later become a catalog-listed course that is part of the degree program, while the student is still working towards the degree, the student may request from the department a retroactive reclassification of credits so earned. In such cases, the student may again submit up to six semester hours of special credits.

Teaching Associates

Each year, the School of Graduate Studies and Research offers a limited number of teaching associate positions to qualified doctoral students. Usually, an associate teaches six credit hours of undergraduate courses, but other teaching-related service is sometimes assigned in lieu of teaching.

These positions carry a stipend and require the associate to be enrolled for graduate credit during each semester of the appointment. During the summer following the appointment, a tuition waiver of up to nine hours of graduate credit is awarded. All fees, as well as tuition during the Fall and Spring semesters, must be paid by the associate.

Minimum requirements: Associates must hold a master's degree or have completed 36 graduate semester hours prior to the appointment and must be enrolled in an IUP doctoral program and remain in good standing during the term of the appointment. Departments may have additional requirements.

For further information, contact the director of Doctoral Studies in the department offering the specific doctoral program.

Time Limitations

Masters students must complete degree requirements no later than five years from the date of earning or transferring credit, unless the period is extended through student petition. Petitions are approved by the student's department and the dean of the School of Graduate Studies and Research.

Doctoral candidates must complete degree requirements no later than seven years after beginning

IUP doctoral program course work. No time extensions are considered for doctoral students unless all degree requirements other than the dissertation (including the approval of the research topic and IRB, if needed) have been completed by the expiration of the seven-year time limit.

Time-to-Degree Masters/Doctoral Dismissal Appeal Policy

A student dismissed from a program because of time-to-degree expiration (see Time Limitations policy) can appeal the decision to the dean of the School of Graduate Studies and Research (SGSR), based on policy and/or procedural violations. The appeal can be based only on policy/procedural violations.

The appeal must be made in writing to the dean of the School of Graduate Studies and Research. Documentation of the policy(ies)/procedures in question must be provided, along with a detailed description of the alleged violation(s). All evidence supporting the alleged violation should also be provided. The student must submit the written appeal to the dean of the SGSR within 30 days of receipt of the dismissal letter.

Upon receipt of the written appeal to the dean of the SGSR will conduct an investigation of the allegation, review the documentation and render a final decision which completes the appeal process. The decision rendered by the dean of the SGSR is final and may not be appealed.

If it is found that policy/and/or procedure has been violated, the dean of the SGSR will rescind the dismissal.

- a) Masters student time limitation (see Time Limitations policy) may be extended through student petition to the assistant dean of the SGSR. The program coordinator on behalf of the student, no later than the first day of the month of the student's time-to-degree expiration date, makes the request to the Dean (or designee) of the SGSR. The request must include justification for the extension. Official documentation to justify the request for the extension and the amount of time will be required by the Dean (or designee) of SGSR to support the request.
- b) Doctoral candidate time limitation (see Time Limitations policy) may be extended through student petition. The program coordinator on behalf of the student, no later than the first day of the month of the student's time-to-degree expiration date, makes the request to the dean (or designee) of the SGSR. The request must include justification for the extension. Official documentation will be required to justify the requests for the extension and amount of time by the dean (or designee) of the SGSR to support the request.

No time extensions are considered for doctoral students unless all degree requirements other than dissertation (including the approval of the research topic and IRB, if needed) have been completed by the expiration of the seven-year time limit (see Time Limitations policy).

Students should discuss the justification for an extension with their program coordinator and the eligibility criteria. The program coordinator must contact the dean of the SGSR (or designee) about the extension request for a student. The dean of the SGSR (or designee) will review all

documentation submitted, thesis/dissertation progress and time-to-degree limitations. The dean of the SGSR (or designee) will render a decision and convey the decision to the student, program coordinator and thesis/dissertation chair.

Total University Withdrawal

The Total University Withdrawal policy provides students who are unable to complete a semester with the option of withdrawing from all classes, or from the university, for that semester.

During the Fall and Spring semesters, Total University Withdrawals may be processed between the first day of classes and the end of the eleventh week of the semester. During summer parts of term, the deadline is the two-thirds point of each summer course for which the student is registered. Students taking a total university withdrawal from all of their courses at IUP may find their financial aid for that particular semester affected. Questions about the financial impact of withdrawal should be addressed to the Office of the Bursar and/or the Office of Financial Aid.

Students voluntarily withdrawing from the university must withdraw from each of their courses via URSA. In addition, they must contact the School of Graduate Studies and Research office. Once the Total University Withdrawal has been processed, a withdraw designation (“W”) will be assigned to all registered courses in the semester from which the student is withdrawing and his or her student status will be changed to “inactive.”

With the exception of documented “Call to Active Duty” withdrawals, all withdrawals follow the deadline dates set for the semester.

Transfer Credit Policy

A student may transfer graduate credits from another institution, with Department approval, up to one-third (1/3) of the required credits for the graduate student’s program at IUP. These graduate courses must be taken from a regionally accredited institution, within the past five years, and the grade earned must be “B” or its equivalent or better. The time limitation rule and residency requirements pertain without modification to transfer credits.

Up to one-third (1/3) graduate credits originally earned in one graduate program at IUP may be applied toward a different graduate program if: 1) the receiving department and 2) the School of Graduate Studies and Research both approve the credits as meeting degree requirements. These courses must have been completed within the past five years, and the grade earned must be a “B” or its equivalent or better. The combination of transfer credits earned at another institution and those earned at IUP may not exceed one-third (1/3) of the total required graduate credits for the program.

To request transfer credits, the student must complete the Request for Graduate Transfer Credit Review form and follow the instructions listed on the form. A catalog course description or course syllabus must accompany the request. An official graduate transcript showing the earned credits must be provided by the school at which the credits were taken. To be considered official, the transcript must arrive in a sealed envelope bearing the official seal of the issuing institution. The request is reviewed in the School of Graduate Studies and Research and the academic

department. After review, the student's program coordinator and the student are notified of the transfer decision.

It is strongly recommended that students seeking to transfer credits from another institution while enrolled at IUP receive advance written authorization for credit acceptance from their academic department, for content prior to enrolling in that course.

If credits earned at another institution are approved for transfer, only the credit, not the grade or accompanying quality points, will appear on the student's IUP transcript.

Credits earned at IUP that are approved for transfer to a second program will not be posted to the transcript a second time.

Transfer Credits for Certificates

Transfer credits for Certificates must comply fully with the Transfer Credit Policy.

2018-2019 Academic Calendar

Early Summer Session Classes Begin	Monday, May 14, 2018
Memorial Day Holiday: No Classes	Monday, May 28, 2018
Early Summer Session Classes End	Friday, June 1, 2018
Summer Session 1 Classes Begin	Monday, June 4, 2018
Fourth of July: No Classes	Wednesday, July 4, 2018
Summer Session 1 Classes End	Friday, July 6, 2018
Summer Session 2 Classes Begin	Monday, July 9, 2018
Summer Session 2 Classes End	Thursday, August 9, 2018
<u>Fall Semester 2018</u>	
Classes Begin	Monday, August 27, 2018
Labor Day: No Classes	Monday, September 3, 2018
Thanksgiving Recess: No Classes	Monday, November 19 through Friday, November 23, 2018
Classes Resume	Monday, November 26, 2018
Classes End (End of Day)	Monday, December 10, 2018
Final Exams	Tuesday, December 11 through Friday, December 14, 2018
Commencement	Saturday, December 15, 2018
<u>Winter Semester 2018/2019</u>	
Classes Begin	Thursday, December 20, 2018
No Classes	Tuesday, December 25, 2018
No Classes	Tuesday, January 1, 2019
Classes End	Friday, January 11, 2019
<u>Spring Semester 2019</u>	
MLK Holiday: No Classes	Monday, January 21, 2019
First Day of Classes	Tuesday, January 22, 2019
Spring Break: No Classes	Monday, March 11 through Friday, March 15, 2019
Classes Resume	Monday, March 18, 2019
Classes End (End of Day)	Monday, May 6, 2019
Final Exams	Tuesday, May 7 through Friday, May 10, 2019
Graduate Commencement	Friday, May 10, 2019

Master's Programs

MA in Adult and Community Education

The Master of Arts in Adult and Community Education (ACE) prepares leaders who develop education and training programs in a variety of settings. ACE graduates work in education, business and industry, health care, community agencies, government, the military, religious organizations, voluntary associations, and many other settings. Students are encouraged to relate theory to practice in their specific areas of professional interest. The ACE program offers a balance of academic preparation, practical field experience, and individual research.

Professional preparation for students in adult and community education is realized through helping them develop:

- A specialized knowledge of the literature, research, and theories in adult and community education
- A broad knowledge of the literature, research, and theories in supporting disciplines
- Specific skills to enhance performance as an adult and community educator
- The ability to reflect critically on and learn from one's professional and personal practices as an adult and community educator
- The ability to guide practice based on theory and to modify theories based on practical experience
- The ability to communicate effectively both in writing and orally
- The ability to understand, conceptualize, and conduct research in adult and community education
- A commitment to support the growth of adult and community education as a field of inquiry and practice
- A commitment to continued professional development in adult and community education
- A commitment to use the knowledge and skills learned in the program to improve the quality of life at work, in the community, and in society

In addition to the regular School of Graduate Studies and Research requirements, applicants for the MA in Adult and Community Education are required to submit a resume. The program can be completed online.

Program Requirements

I. Core Courses (27 cr.)

ACE 620	Introduction to Adult and Community Education	3 cr.
ACE 621	The Adult Learner	3 cr.
ACE 622	Program Planning in Adult and Community Education	3 cr.
ACE 623	Organizational Leadership in Adult and Community Education	3 cr.
ACE 625	Teaching Adults	3 cr.
ACE 635	Issues in Distance Education	3 cr.
ACE 640	Community Based Education	3 cr.
ACE 735	Analysis of the Professional Literature in Adult and Community Education	3 cr.

II. Research Requirement (6 cr.)

GSR 615	Elements of Research	3 cr.
ACE 745	Practical Research in Adult and Community Education	3 cr.

III. Either**A. Thesis Option (6 cr.)**

ACE 795	Thesis	6 cr.
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or

B. Non-Thesis Option* (6 cr.)

ACE 698	Internship	0-6 cr.
-----	Electives (as approved by advisor)	0-6 cr.

*A Portfolio is required for non-thesis option students. Students may take 6 credits of internship, 6 credits of electives, or 3 credits of each.

Total 36 cr.**MA in Adult and Community Education Instructional Design and Technology Track**

The MA in Adult and Community Education track in Instructional Design and Technology (IDT) prepares students for employment in instructional design, instructional technology, training, and education careers.

Graduates work in education, business and industry, health care, community agencies, government, the military, and many other settings. Students are encouraged to relate theory to practice in their specific areas of professional interest. The IDT program offers a balance of academic preparation, practical field experience, and individual research.

Program Requirements**I. Core Courses (27 cr.)**

ACE 600	Introduction to Instructional Design	3 cr.
ACE 610	Learning Management Systems	3 cr.
ACE 617	Distance Education Technology	3 cr.
ACE 621	The Adult Learner	3 cr.
ACE 622	Program and Project Planning	3 cr.
ACE 623	Organizational Leadership in Adult and Community Education	3 cr.
ACE 630	Distance Education Pedagogy	3 cr.
ACE 700	Advanced Instructional Design	3 cr.
BTED 675	Web Design: Theory and Application	3 cr.

II. Research Requirement (3 cr.)

GSR 615	Elements of Research	3 cr.
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III. Either

A. Thesis Option (6 cr.)

ACE 795	Thesis	6 cr.
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or

B. Non-Thesis Option (6 cr.)*

ACE 744	Program and Project Evaluation	3 cr.
ACE 698	Internship	3 cr.

or

---	Elective (as approved by advisor)	3 cr.
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*A portfolio is required for non-thesis option students

Total 36 cr.

MA in Applied Archaeology

The Department of Anthropology offers a graduate program leading to a degree of Master of Arts in Applied Archaeology. The MA program in applied archaeology is designed to meet a need for increased training of professional archaeologists employed in the fields of historic preservation, cultural resource management, and heritage planning and tourism.

The program is designed to prepare students to meet the U.S. Secretary of the Interior's standards for professional archaeologists upon graduation (an option for individuals already employed in the field of cultural resource management) or to meet all the requirements except for a full year of experience as a project supervisor (an option for students who enter the program immediately after graduation with a B.A. degree). Students are trained in the current relevant subjects for professional archaeologists including preservation law, ethics, business, and archaeology, have the writing skills to prepare technical reports as well as publications for the general public, and have specialized training in technical skills such as artifact analysis, faunal analysis, and geophysical surveys, which are critical to professionals in this field.

Department resources include geophysical, geoarchaeological, chemical characterization, and 3-D scanning equipment. Faculty members are experienced teachers and active researchers in different aspects of cultural resource management and applied archaeology. Archaeological Services, an externally funded research center associated with the Anthropology Department, may provide funding and professional experience for students prior to graduation.

Admission Criteria

Students who enter the program usually hold a bachelor's degree in anthropology, history, geography, or a related field. Depending on their undergraduate coursework, students may be required to take courses as a condition of their admission to prepare for the program, especially courses in archaeological theory and artifact analysis and an archaeological field school. Applicants must meet all the requirements of the School of Graduate Studies and Research and must take the General Test of the Graduate Record Exam (GRE) before admission.

Program Requirements

The degree program requires a minimum of 36 semester hours of credit including the thesis credits. The program includes six core courses: ANTH 610, ANTH 612, ANTH 616, ANTH 618,

ANTH 714 and ANTH 745 in addition to 12 semester hours of electives, an optional internship, and required thesis. At least 9 credits of electives must be from courses with Anthropology prefixes; the remaining credits may be from related departments. Students may arrange an internship as part of their degree for up to three credits. All students will be required to complete a thesis, which may be in the form of a cultural resource management report or policy study of a cultural resource issue. The internship may be used as preparation for the thesis. Students are encouraged to enroll in the certificate in Geographic Information Science and Geospatial Techniques from the Geography Department, or other relevant certificate program from another department. Courses in these certificate programs can also be used to fulfill the non-ANTH electives for the MA in Applied Archaeology.

I. Core Program (18 cr.)

ANTH 610	Archaeological Laws and Ethics	3 cr.
ANTH 612	Seminar in Cultural Resource Management I: Method and Theory	3 cr.
ANTH 616	Pre-Columbian North American Archaeology	3 cr.
ANTH 618	Historical Archaeology	3 cr.
ANTH 714	Seminar in Cultural Resource Management II: Analysis and Interpretation	3 cr.
ANTH 745	Seminar in Archaeological Interpretation	3 cr.

II. Electives (12 cr.)

(At least 9 credits must have ANTH prefix)

ACCT 502	Foundations of Financial Accounting	3 cr.
ACCT 607	Management Accounting	3 cr.
ANTH 514	Native Americans	3 cr.
ANTH 556	Ethnographic Research Methods	3 cr.
ANTH 560	Ethnographic Field School	6 cr.
ANTH 581	Special Topics	3 cr.
ANTH 584	Specialized Methods in Archaeology	3 cr.
ANTH 586	Historic Artifact Analysis	3 cr.
ANTH 587	Geoarchaeology	3 cr.
ANTH 588	Geophysical Applications in Archaeology	3 cr.
ANTH 589	Prehistoric Technologies	3 cr.
ANTH 591	Zooarchaeology	3 cr.
ANTH 592	Soils Science: Archaeological and Geoenvironmental Applications	3 cr.
ANTH 625	Public Archaeology	3 cr.
ANTH 694	Anthropology Seminar	3 cr.
ANTH 699	Independent Study	3 cr.
ANTH 720	Issues in Historic Preservation	3 cr.
ANTH 730	Archaeology of Pennsylvania	3 cr.
ANTH 740	Advanced Archaeological Field Methods	3-6 cr.
GEOG 515	Introduction to Remote Sensing	3 cr.
GEOG 516	Introduction to Geographic Information Systems	3 cr.
GEOG 519	Geographic Information Systems (GIS) for Environmental Applications	3 cr.

GEOG 625	Environmental Planning	3 cr.
HIST 606	Topics in Public History	3 cr.
HIST 770	Archival Principles and Practice	3 cr.
HIST 771	Museum Studies	3 cr.
HIST 772	Oral History Theory and Method	3 cr.

Other elective courses may be approved by the faculty on an individual basis.

Up to 3 credits of ANTH 740 may be applied to program requirements.

Up to 3 credits of ANTH 560 may be applied to program requirements.

III. Internship and Thesis (6 cr.)

ANTH 698	Internship	3 cr.
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Students may elect to take a faculty-supervised internship either on or off campus with organizations utilizing archaeological skills in nonacademic settings. Off-campus internships may include cultural resource management companies, government agencies, private, nonprofit organizations, tribal governments, and museums. Students who do not elect to take an internship will be required to take 6 thesis credits.

ANTH 795	Thesis	3-6 cr.
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All students will be required to write a thesis either in the form of a cultural resource management project report or a policy paper on a cultural resource issue.

Total 36 cr.

Master of Fine Arts (MFA)

The 60-credit M.F.A signals the highest level of professional competence in the Fine Arts. It requires the development of a verbally and visually articulate argument in a chosen medium, such as painting, drawing, sculpture, metals, woodworking, ceramics, and trans-media collaborations. The art student's research and development culminate in a written thesis and a mature body of artwork presented in a thesis exhibition.

Art students who desire professional practice or university/college level teaching upon graduation should choose the M.F.A. program. Preparation for professional practice and teaching in higher education is exercised through rigorous, diverse components of the program such as critiques, studies in contemporary culture in contexts of art history, art theory, and criticism.

The M.A. and M.F.A. degree programs at IUP are accredited by the National Association of Schools of Art and Design and conform to guidelines and standards of the College Art Association.

Admission Requirements

Individuals seeking admission to the graduate study within the Department of Art must meet the general admission standards and adhere to academic policies established by the School of Graduate Studies and Research at IUP. These specific policies are described in the Graduate Catalog.

An applicant to the M.F.A. program must either be a graduate of an accredited B.F.A., B.A., or

be judged to possess the necessary prerequisite studio proficiency. Admission into the M.F.A. program of the Department of Art is based on the nature, extent, and quality of the preparation in studio, art history, criticism, and other academic subjects. If an applicant is deemed to be deficient in any of these particular areas, the graduate committee may require satisfactory completion of certain undergraduate courses.

Application Deadlines

First admission consideration and applications for assistantships	February 15
Final admission consideration	May 1

Program Requirements

I. Studio Specialization (33 credits)

Major Studio Concentration ²		21 credits
ART 680	Graduate Studio Critique	9 credits
Select one of the following courses:		
ART 610	Creative Inquiry: Visual Concepts	3 credits
ART 611	Creative Inquiry: Inter-Media Contexts	3 credits

II. Studies in Visual Culture, Art History, and Pedagogy (12 credits)

ART 620	Art and Visual Culture	3 credits
ARHI 683	Graduate Seminar in Theory and Criticism	3 credits
ART 615	Art Seminar	3 credits
ART 730	Teaching Studio Art	3 credits

III. Graduate-level Studio Electives (6 credits) ²

IV. Graduate-level Electives (6 credits)

V. Thesis Requirement (3 credits)

ART 795	M.F.A. Thesis/Exhibition	3 credits
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Total 60 cr.

¹Students undergo a candidacy review upon the completion of 18-24 credits

²Graduate studio courses that can count towards the studio concentration and electives are:

ART 560	Graduate Studio in Jewelry and Metal Work
ART 572	Graduate Studio in Ceramics
ART 573	Graduate Studio in Sculpture
ART 574	Graduate Studio in Oil Painting
ART 575	Graduate Studio in Drawing
ART 576	Graduate Studio in Woodworking

MS in Biology

The Department of Biology offers a Master of Science degree that is intended both for the student who wishes to pursue further graduate work leading to the PhD degree and for the student who desires the MS degree as a means to seek a career as a biologist in a number of different professions.

The MS degree in Biology has two alternatives, the thesis and non-thesis options. The thesis option is research oriented, with an emphasis on a comprehensive research project under the supervision of a thesis advisory committee. The non-thesis option also requires a research component that is under the direction of a faculty member. Both alternatives are intended to provide the student with a well-rounded biology background, as well as furnish the research skills required for postgraduate positions.

Admission Criteria

To be admitted to the Department of Biology, the applicant must have completed the requirements for a bachelor's degree from an accredited college or university. These requirements should include a major in Biology (or related subject), one year of inorganic chemistry, one semester of organic chemistry, and one semester of calculus or statistics. Applicants with undergraduate deficiencies may be required to register for courses that help to fill these deficiencies.

Program Requirements

The departmental requirements for candidacy for the MS degree are:

- Satisfactory completion of 15 semester hours of graduate work, with at least eight hours in core courses.
- The selection of a thesis advisor and a thesis advisory committee of at least two additional faculty members (in the case of the thesis student) or a research advisor (in the case of non-thesis student) to guide the candidate in completing the program.
- An official application to candidacy, including a research proposal approved by the advisor, must be submitted to the Biology Department Graduate Committee.

Candidates must maintain a grade point average of at least 3.0. Continuance in the graduate program for those receiving two individual course grades below a "B" is contingent upon review of the Graduate Committee.

Students working for this degree will complete 32 semester hours of work if pursuing a thesis degree or 35 semester hours of course work if pursuing a non-thesis degree.

I. Required Core Courses

Thesis option—11 semester hours

Non-thesis option—8 semester hours

A. Required Courses

Thesis option (11 cr.)

<u>BIOL 602</u>	<u>Biometry</u>	<u>3 cr.</u>
<u>BIOL 611</u>	<u>Biology Seminar I</u>	<u>1 cr.</u>

BIOL 612	Biology Seminar II	1 cr.
BIOL 795	Thesis	6 cr.

Non-thesis option (8 cr.)

BIOL 602	Biometry	3 cr.
BIOL 611	Biology Seminar I	1 cr.
BIOL 612	Biology Seminar II	1 cr.
BIOL 699	Independent Study	3 cr.

II. Elective Courses

Thesis option—21 semester hours

Non-thesis option—27 semester hours

Courses are to be selected with the approval of the advisor from the 500- and 600-level biology elective courses or from related science and mathematics courses.

III. Research Requirement and Assessment for the MS

Thesis Option

The candidate must conduct original research under the direction of the thesis advisory committee and present a research thesis at the conclusion of the program. The candidate registers for BIOL 795, Thesis, while engaged in research and preparation of the thesis. The candidate will prepare a written thesis, and then present a public seminar, reporting results of the research. Following the public seminar, the candidate also must complete an oral defense of the research before the thesis committee. In many courses in the Department of Biology, additional laboratory time and/or field trips may be required beyond the regularly scheduled periods.

Non-thesis Option

The candidate must conduct an original research project under the direction of a faculty advisor. A report in the format of a journal article must be submitted at the conclusion of the study. This requirement is programmed as BIOL 699, Independent Study. Students pursuing a Non-thesis option are required to take and pass a competency exam administered by the candidate's advisory committee. The purpose of this examination is to assure that all graduates have a broad-based knowledge of biology, as well as a mastery of the subject matter pertaining directly or indirectly to their research project. This examination must be scheduled after completion of 18 semester hours but before completion of 27 semester hours. If the student fails this exam, a second exam will be administered which, at the discretion of the committee, can be oral or written. This exam must be taken within a four-month period following the first exam. Failure of the second exam will result in dismissal from the program.

Master of Business Administration (MBA)

The Master of Business Administration degree program is designed to serve the needs of junior and intermediate-level business executives who are seeking additional knowledge and skills to do a more efficient job of problem solving and decision-making. Also, the program is structured to give recent college graduates advanced training in business management prior to entry into a business career.

The MBA may be taken on either a part-time or full-time basis. Courses are scheduled for both day and night sessions, including a full schedule of course offerings in the summer.

Core I of the program consists of four undergraduate-level prerequisite courses that are designed to provide a foundation in the basic concepts and techniques used in the various functional areas of business and to prepare the student for the graduate courses in business administration. Core I requirements can be met by completing the prerequisite courses at IUP, by completing equivalent courses at other accredited universities/institutions, or through successful completion of College Level Examination Program (CLEP) tests in these subjects (with a grade of “C” or better). At the time of admission, the MBA program coordinator will evaluate the academic transcripts of the student for Core I course waivers and give the student a plan for completion of courses needed for this stage. Course descriptions may be required to establish equivalency of courses completed elsewhere.

Core II of the program consists of 36 semester hours in courses that provide advanced knowledge in the functional and applied areas of business. Students may elect to graduate with a general MBA or complete nine credits of additional prescribed course work and receive a concentration.

Normally, a student with a recent bachelor’s degree in Business Administration from an accredited university will have completed the entire Core I courses. This will enable the student to complete a general MBA program in one year of full-time study, whereas a non-business major will require 1.5 years—one semester for the Core I or undergraduate courses and one year for the Core II or graduate course requirements. An additional semester of work will be required for students seeking a concentration. Part-time students typically require about three years completing the program.

Admission Criteria

In addition to meeting admission requirements of the School of Graduate Studies and Research, students seeking enrollment in the MBA program must achieve a satisfactory score on the Graduate Management Admission Test (GMAT) before admission to the degree program (450 in GMAT or a combination of 1,000 points from GMAT score plus 200 times GPA on a 4.0 scale). Admission decisions are based on academic track record of the applicant, GMAT scores, prior work experience, strength of recommendation letters, and clarity of goal statement presented by the candidate. International applicants are required to submit a Test of English as Foreign Language (TOEFL) score report as part of the MBA application.

Program Requirements

Core I

Complete the following prerequisite courses or equivalent with a grade of “C” or better:

<u>ACCT 201</u>	<u>Accounting Principles I</u>
<u>ECON 122</u>	<u>Principles of Economics II</u>
<u>FIN 310</u>	<u>Finance I</u>
<u>MATH 214</u>	<u>Probability and Statistics</u>

Or successfully complete equivalent proficiency examinations approved by MBA Program Coordinator.

Core II (36 cr.)

Complete 36 credits in the following graduate MBA courses:

A. Required:

QBUS 601	Data Analysis and Decision Making	3 cr.
MGMT 613	Organizational Analysis	3 cr.
ACCT 607	Management Accounting	3 cr.
ECON 634	Managerial Economics	3 cr.
BTST 670	Organizational Communication	3 cr.
IFMG 640	Management Information Systems	3 cr.
MKTG 603	Marketing Management	3 cr.
FIN 630	Financial Management	3 cr.
MGMT 637	Operations Management	3 cr.
BLAW 633	Case Problems in Business Law	3 cr.
MGMT/MKTG 650	International Business	3 cr.
MGMT 695	Business Policy	3 cr.

B. Optional Concentration Requirements:

Students seeking to specialize can take nine additional credits of prescribed coursework and receive a concentration in the following areas:

- *Energy Management*: This business-focused concentration will incorporate various facets of the energy industry as it is related to energy management. It will be designed for those students who have an interest in energy management and wish to become more familiar with the business aspects of the energy field.
- *Entrepreneurship*: The entrepreneurship concentration helps current and prospective entrepreneurs and small business owners in all facets and phases of starting and successfully operating a small business. It also helps individuals in understanding how to be innovative in a larger organization and how creativity and agility can help teams and departments in organizations.
- *Finance*: The in-depth Finance courses will enable the student to appropriately integrate financial theory with challenging problems in the finance field. Specializing in finance will help students become attractive candidates for employment in the areas of investment banking, commercial banking, risk management, and derivatives.
- *Information Systems*: The IS concentration is designed to be offered to an audience with basic exposure to IS. It will serve to further their understanding of IS/IT concepts and principles. For those students that already have a background in IS/IT, the value added will come from the enhanced business and managerial focus in the course content. The courses will integrate learning from other business and technical courses, and apply them to a business and managerial context. This program will help prepare students to take a diverse set of roles in the IS/IT industry, depending upon their background and interest. IS/IT is pervasive in today's business and a variety of roles exist for students to explore and build a career in this area. For instance sustainability is emerging as an important topic in the area of IS/IT that students can explore. The IS/IT area is a dynamic and fast evolving discipline and as such course offerings in the concentration will be periodically adjusted as per market conditions and trends in the industry

- *International Business*: This concentration helps students to learn to manage in a global business setting such as a multinational company. It is important for today’s managers to understand the nuances of working in a global and cross-cultural setting. Students will gain expertise in the management and marketing aspects of a global business.
- *Human Resources Management*: The HRM concentration prepares students to be human resources generalists in smaller businesses or to be specialists that can work in appraisal, labor relations, and related human resource functions.
- *Marketing*: Marketing concentration entails courses that provide MBA students with an in-depth knowledge in specific functional areas of marketing, which would enable them to make strategic and tactical decisions pertaining to the marketing-related activities of their firms. The courses have been developed to provide the MBA students with the tools and the theories to deal with all three key areas of marketing: External Marketing—to make realistic promises of product and service offerings to B2B and/or B2C customers; Internal Marketing—to interact with the customers efficiently and effectively to deliver them the promised product and service offerings, thereby converting them to profitable, long-term customers.
- *Professional Accountancy*: The Professional Accountancy Concentration is designed for non-accounting majors who do not have an undergraduate degree in accounting but want to further their understanding of accounting concepts and principles. Completion of the program will help to prepare students for entry into the accounting profession and in most U.S. states satisfy the educational requirements to sit for the CPA licensing exam. (Since educational requirements may differ between states, the student should check with the regulatory agencies in the state in which he or she plans to sit for the exam to verify that state’s requirements.)
- *Supply Chain Management*: Managing supply chains has become increasingly important in today’s business environment, in which customers, manufacturers, service providers, and suppliers are spread around the world. This concentration prepares students to manage operations with good understanding of supply chains and logistics, enterprise resource planning (ERP), balanced scorecard, quality management, project management, inventory management, capacity management, strategic alliances, outsourcing, facility location/layout, and related topics.

Students seeking to specialize in a specific area of business can take an additional nine credits of prescribed coursework as described below and receive a concentration in that area only in conjunction with the MBA degree. All concentrations may not be available for the MBA, Executive Track students. The MBA program director will advise the Executive Track students about the available concentrations during the time of admission.

Energy Management

Required Courses:

MGMT 541	Introduction to Energy Management
BLAW 541	The Law of Property Oil and Gas Leasing I
FIN 501	Energy Finance

And any two of the following:

ACCT 575	Accounting for the Oil and Gas Industry
ELR 580	Introduction to Negotiations and Conflict Resolution

BLAW 542	The Law of Property Oil and Gas Leasing II
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Entrepreneurship

Any three of:

MGMT 571	Opportunity Launch and New Venture Development
MGMT 572	Organizational Entrepreneurship
MGMT 503	Small Business Planning
MGMT 581/681	Special Topics in Management Finance

Finance

FIN 635	Principles of Investments in Securities
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And any two of the following:

FIN 510	Financial Institutions and Markets
FIN 520	Investment Analysis
FIN 524	International Financial Management

Human Resources Management

Any three of:

MGMT 500	Compensation Management
MGMT 501	Training and Development
MGMT 505	Staffing
MGMT 581/681	Special Topics in Management
MGMT 698	Management Internship International Business

Information Systems

Any three of:

IFMG 481/581	Special Topics in Information Systems
IFMG 460/560	Analysis and Design
IFMG 580	Distributed Business Information Systems
IFMG 663	Project Management for Information Technology Professionals
MGMT 698	Management Internship International Business

International Business

Any two of:

MGMT 551	International Management
MGMT 554	International Competitiveness
MGMT 698	Management Internship*

And any one of:

MKTG 530	International Marketing
MKTG 606	Advances in Global Marketing
MKTG 581/681	Special Topics in Marketing
MKTG 698	Marketing Internship*

* Only one three-credit internship will count towards the concentration.

Marketing

Any three of:

MKTG 611	Marketing Communications
MKTG 521	Marketing Research
MKTG 534	Marketing Logistics
MKTG 539	Internet Marketing
MKTG 581/681	Special Topics in Marketing
MKTG 698	Marketing Internship
MKTG 606	Global Marketing

Professional Accountancy

Any three of:

ACCT 531	Auditing
ACCT 521	Federal Tax I
ACCT 541	Accounting for Government and Nonprofit Organizations
ACCT 512	Advanced Cost Accounting

Supply Chain Management

Any three of:

MGMT 537	Supply Chain Management
MKTG 534	Marketing Logistics
MGMT 534	Quality Management
MGMT 581/681	Special Topics in Management
MGMT 698	Management Internship

Other

Students may take a maximum of 6 credits of electives in their concentration area from 581/681 Special Topics courses offered with the following prefixes: ACCT, BLAW, BTST, FIN, IFMG, MGMT, MKTG, and QBUS.

A student with an undergraduate degree in a functional area cannot obtain an MBA concentration in the same area. For example: An MBA student with a Marketing undergraduate degree cannot obtain an MBA concentration in Marketing.

MBA, Executive Track

The Master of Business Administration, Executive Track program is designed to serve the needs of experienced managers from industrial, financial, nonprofit, and small business, as well as the public sector, and allows them to earn an MBA degree while continuing their working career.

A Saturdays-only class format allows participants to complete a general MBA in six trimesters (two years) or a specialized MBA in eight trimesters (three years) at a convenient time and location. A lock-step format, in which members of each class begin the program at the same time, take all the required courses together, and typically complete the program as a group, facilitates the formation of long-term study groups, extends a peer group or cohort experience to the participants, and creates a long-lasting network which develops both business and social

contacts. Limited class size with careful selection of participants insures a wide variety of professional backgrounds. Such a learning forum provides exposure to peers from all organizational settings in a cohesive, networking environment.

Master of Business Administration, Executive Track (MBA) - Hybrid/Blended option

In addition to providing the same value, rigor, and quality as the traditional MBA, Executive Track, the Hybrid/Blended option provides additional flexibility to working professionals. The faculty members will meet the students for seven of the 14 Saturdays in a semester. Typically, weeks 1, 3, 5, 8, 10, 12, and 14 of a semester will be in class and weeks 2, 4, 6, 7, 9, 11, and 13 would be online. In any given semester, three courses are taught concurrently, and the two faculty members will meet the students in class on the same seven weeks as identified above. The remaining seven modules are placed online; the students can work on them at their convenience. This may include watching lectures and other videos, reading papers/articles/cases, completing assignments, etc. The two faculty members will be available for asynchronous communication during the week and for synchronous communication at pre-specified times during the weekends.

The MBA, Executive Track program offered by IUP constitutes a demanding experience for participants. The program prepares each individual to accept increased responsibilities in general management. The curriculum offers broad training in foundations of management and basic analytical techniques while exposing students to contemporary management tools and technologies. The prevailing theme of the program is the emphasis on strategic decision-making in a changing global environment.

Admission Criteria

Completed accredited undergraduate degree in any field with a grade point average of 2.6 or higher, a GMAT score of 450+ (for applicants with 4+ years professional work experience submission of GMAT scores is optional). Participants who have not had recent academic training are expected to update their mathematical skills concurrent with, or before beginning, the MBA, Executive Track program.

In addition to completing all the application requirements of IUP Graduate School, applicants to MBA-Executive track must submit a copy of their recent resume.

Program Requirements

The program will include a one-day, mandatory, on-campus orientation period for all students. Students will be introduced to graduate faculty and will be exposed to campus-based facilities and resources. Students will have an opportunity in a social setting to discuss program objectives/characteristics with graduate faculty and the administration of the college. Thirty-three semester hours of MBA course work are required for the general MBA degree. Up to nine semester hours of MBA, Executive Track prerequisites are to be completed before starting graduate-level course work for students who do not have business background.

I. Prerequisites

Students must complete the following prerequisites:

- Financial Accounting (for ACCT 607 Management Accounting)

- Basic Statistics (for QBUS 601 Data Analysis and Decision Making)
- Micro Economics (for ECON 634 Managerial Economics)
- Basic Finance (for FIN 630 Financial Management)

These prerequisites can be met with successful completion of equivalent undergraduate courses or successful completion of approved proficiency examinations in these subject areas.

II. Required Courses

QBUS 601	Data Analysis and Decision Making	3 cr.
ECON 634	Managerial Economics	3 cr.
MGMT/MKTG 650	International Business	3 cr.
BTST 670	Organizational Communication	3 cr.
ACCT 607	Management Accounting	3 cr.
MGMT 613	Organizational Analysis	3 cr.
FIN 630	Financial Management	3 cr.
MKTG 603	Marketing Management	3 cr.
MGMT 637	Operations Management	3 cr.
IFMG 640	Management Information Systems	3 cr.
BLAW 633	Case Problems in Business Law	3 cr.
MGMT 695	Business Policy	3 cr.

Students seeking to specialize can take nine additional credits of prescribed course work and receive a concentration in the areas described under the MBA program, after completing Core I. All concentrations may not be available for the MBA, Executive Track students. The MBA program director will advise the Executive Track students about the available concentrations during the time of admission.

MEd in Business Workforce Development

The Master of Education in Business/Workforce Development, offered by the Department of Adult and Community Education, is designed to meet the needs of a wide variety of individuals. This program includes a core of 15/18 credits plus 12/15 credits in one of three areas of specialization—Business, Computer, and Information Technology; Workforce Development; and Administrative. Within each area of specialization, students are encouraged to enroll in courses that meet their professional areas of interest.

The **Business, Computer, and Information Technology Specialization** is of interest to individuals desiring to enhance their knowledge of pedagogy, study current business issues and trends, and expand the use of technology in the learning environment. In addition, an opportunity is available for an individual to complete the requirements for initial Pennsylvania K-12 teaching certification in Business, Computer, and Information Technology (business education)—this opportunity requires the completion of additional course work beyond the 30 credits required for the MEd

The **Workforce Specialization** is of interest to individuals desiring to broaden their understanding of business, to enhance their knowledge of industry training, and to update their understanding of new technologies used in the workforce.

The **Administrative Specialization** provides an option for candidates interested in positions as

supervisor or director of career and technical programs. Content is based on certification standards established by the Pennsylvania Department of Education. An enhancement of this specialization is the opportunity to complete the course requirements for Pennsylvania Department of Education certification as vocational supervisor or vocational director. Completion of the MEd and fulfillment of PDE requirements leads to Vocational Supervisor Certification (PDE certification requirements include verification of appropriate teaching experience in a career and technical field, such as Agriculture, Business, Health, Trade and Industrial and/or Family and Consumer Science). Candidates interested in Vocational Director Certification must complete an additional 9 hours of coursework.

Courses can be taken on either a full- or part-time basis, with classes offered during the evening; a full schedule of course offerings is available in the summer. Needs of each student are addressed through individual attention, flexible scheduling, and opportunities for original research.

Upon admission to the School of Graduate Studies and Research, the student is assigned an advisor to assist in tailoring the program to meet individual goals. This flexibility is a key feature of the program.

Admission Criteria

1. Meet the admission requirements of the School of Graduate Studies and Research
2. Achieve a satisfactory score on either the GMAT or GRE exams
3. Have earned an undergraduate degree in business from an accredited college/university or have completed business core courses from an accredited community college, college, or university if seeking admission to either the Workforce Development Specialization or the Certification option in Business, Computer, and Information Technology

Degree Candidacy

1. For those students in the Workforce Development specialization, the Administrative specialization, or Business, Computer, and Information Technology specialization without initial certification, degree candidacy will be contingent upon maintaining a 3.0 GPA.
2. For those students in the Business, Computer, and Information Technology specialization who are seeking initial certification, degree candidacy will be contingent upon maintaining a 3.0 GPA and upon passing Praxis I prior to completing 12 program hours and Praxis II prior to completing 18 program hours.

Graduation

1. For those students in the Workforce Development specialization or the Administrative specialization, graduation will be contingent upon maintaining a 3.0 GPA.
2. For those students in the Business, Computer, and Information Technology specialization who are seeking initial certification, graduation will be contingent upon maintaining a 3.0 GPA and upon completing BTED 695, Professional Semester (Student Teaching) with a minimum of a B.

Program Requirements

I. Business, Computer, and Information Technology (BCIT)/ Workforce Core (15 cr.)

BTST 650	Issues and Trends in Business/ Workforce Development	3 cr.
BTST 670	Organizational Communication	3 cr.
BTST 680	Technical Update	3 cr.
GSR 615	Elements of Research	3 cr.
BTST 656	Applied Research in Business/Workforce Development	3 cr.

II. Workforce Development Specialization Elective Area (15 cr.)

BTST 542	Training Methods in Business and Information Technology Support	3 cr.
BTST 642	Training with Technology	3 cr.
BTST 675	Web Design Theory and Practice	3 cr.
BTST 655	Emerging Information Technologies	3 cr.

Choose one of the following:

BTST 665	Information Security in the Enterprise	3 cr.
SAFE 603	Human Relations in Safety Management	3 cr.
SAFE 645	Principles of Occupational Safety	3 cr.
ACE 621	The Adult Learner	3 cr.
ACE 625	Facilitating Adult Learning	3 cr.

III. Business, Computer, and Information Technology Specialization Elective Area (15 cr.)

BTST 675	Web Design Theory and Application	3 cr.
BTST 614	Instructional Computing Basics	3 cr.
OR		
COMM 614	Instructional Computing Basics	3 cr.
BTST 631	Interactive Multimedia	3 cr.
OR		
COMM 631	Interactive Multimedia	3 cr.
COMM 600	Instructional Design and Development	3 cr.
EDSP 704/804	Advanced Educational Psychology	3 cr.
OR		
EDSP 747/847	Advanced Psychology of Adolescent Education	3 cr.

Certification Option (Pennsylvania Certification K-12) (24 cr.)*

BTED 690	Clinical Studies in Business Education	3 cr.
BTED 693	Seminar in Teaching Business Subjects	3 cr.
EDEX 650	Exceptional Children and Youth	3 cr.
EDSP 577	Assessment of Student Learning	3 cr.
BTED 695	Professional Seminar	12 cr.

*Certification candidates must meet teacher certification requirements of IUP College of Education and Communications. Must meet Eberly College undergraduate core business education requirements (see current undergraduate catalog).

I. Administrative Professional Development Core (18 cr.)

BTED/VOED 601	Curriculum and Instructional Leadership in Career and Technical Education	3 cr.
GSR 615	Elements of Research	3 cr.
BTST 656	Applied Research in Business/Workforce Development	3 cr.
BTED/VOED 600	Curriculum Development in Career and Technical Education	3 cr.
BTED/VOED 602	Conference Leadership and Communication Methods in Career and Technical Education	3 cr.

II. Administrative Specialization Elective Area (minimum of 12 cr.)

EDSP 577	Assessment of Student Learning (required)	3 cr.
BTED/VOED 603	Management of Instruction for Career and Technical Education	3 cr.
BTED/VOED 604	Curriculum Supervision in Career and Technical Education	3 cr.
BTED/VOED 605	Policy Administration	3 cr.
BTED/VOED 606	Leadership for Career and Technical Educators	3 cr.
BTED/VOED 607	Organizations and Structure for Career and Technical Education	3 cr.
BTED/VOED 608	Legal and Legislative Issues in Career and Technical Education	3 cr.

- Certification candidates must meet teacher certification requirements of IUP College of Education and Communications.
- Electives selected based on individual candidate's background.

According to Pennsylvania commonwealth guidelines, students must be certified K-12 and not in separate areas.

MA in Clinical Mental Health Counseling

The Master of Arts degree program in Clinical Mental Health Counseling is designed to prepare students to work in a variety of settings, including mental health centers, drug and alcohol treatment programs, specialized community agencies, vocational or rehabilitation programs, correctional institutions, health care settings, social services, and business and industry.

The 60 credit hour program includes a series of counseling skills courses, including individual and group practicums, and a 600 hour field experience under the supervision of a qualified supervisor. The program is accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP) and meets the educational standards as set forth by the Pennsylvania State Board of Social Workers, Marriage and Family Therapists and Professional Counselors, for licensure as a Professional Counselor in Pennsylvania.

The counseling curriculum is based on the educational standards as set forth by the National Board for Certified Counselors. Students who successfully complete their course work will be eligible to take the National Counselor Examination for Licensure.

Program Requirements

Students enrolled in the MA program will complete 60 hours of credit for the degree. The program requires the following courses:

GSR 615	Elements of Research	3 cr.
COUN 615	Counseling Across the Life Span	3 cr.
COUN 617	Basic Counseling Skills	3 cr.
COUN 618	Multicultural and Diversity Issues in Counseling	3 cr.
COUN 634	Assessment Procedures for Clinical Mental Health Counselors	3 cr.
COUN 636	Career Counseling	3 cr.
COUN 637	Counseling Theories	3 cr.
COUN 639	Group Counseling Theory and Experience	3 cr.
COUN 657	Individual Counseling Practicum (Clinical Mental Health)	3 cr.
COUN 669	Group Counseling Practicum	3 cr.
COUN 671	Introduction to Diagnostic Issues for Counselors	3 cr.
COUN 672	Counseling and Consulting within Systems	3 cr.
COUN 677	Crisis and Addictions Counseling	3 cr.
COUN 710	Clinical Mental Health Counseling	3 cr.
COUN 720	Professional Orientation and Ethical Practice in Counseling	3 cr.
	Elective	3 cr.
	Elective	3 cr.
	Elective	3 cr.
COUN 755	Field Experience	6 cr.
		Total 60 cr.

Prospective students for the Master of Arts in Clinical Mental Health Counseling must meet departmental admissions requirements and procedures in addition to those of the School of Graduate Studies and Research. Prospective students should contact the department to determine these requirements. Applicants are required to attend an admissions workshop as the final step in the admissions process. Workshops are held twice a year, and applicants should contact the department to obtain the dates of workshops and deadlines for completed applications to be received by the School of Graduate Studies and Research.

For current students, each year an evaluation of student academic, clinical, and professional competence will be made. Students will receive formal feedback based on the outcome of the evaluation results and a joint effort will be made to remediate any deficiencies. Serious deficiencies may result in recommendations for remedial work or termination from the program. Students must pass all practicum experiences with a B or better in order to advance to internship/field experience.

MA in Criminology

The MA program on the main campus offers full- or part-time study. The program is appropriate for students who are preparing for doctoral studies, along with careers in research or the administration of criminal justice. The MA program also is available online as a full-time or part-time program.

Admission Criteria

In addition to meeting the requirements for admission to the School of Graduate Studies and Research, a student intending to work toward a Master of Arts degree in Criminology will be required to have the following prerequisite academic and/or professional preparation:

- Students should be able to demonstrate a sound understanding of criminological theory and the criminal justice system (generally satisfied by a bachelor's degree in criminology, criminal justice, or related field); or,
- Students should have knowledge gained through experience within the justice system or by specialized training or completed graduate or undergraduate studies in a related field.

All applicants for the Master of Arts degree in Criminology must possess the essence of knowledge offered in the undergraduate (B.A.) program core courses. These courses are:

CRIM 102	Survey of Criminology
CRIM 306	Criminological Research Methods
CRIM 400	Theoretical Criminology
CRIM 401	Contemporary Issues in Criminology

If, upon the consideration of the Department of Criminology and Criminal Justice Graduate Committee, an applicant is deemed to be deficient, the department, through the master's coordinator, will require appropriate undergraduate courses to remove these deficiencies. Students begin the MA in Criminology program during the Fall semester only. Applicants may apply at any time; however, priority will be given to completed applications received by March 15. After March 15, applications will be received, but admission to the program is contingent upon the availability of space.

Program Requirements

Students must choose between a thesis or non-thesis curriculum by the end of their second semester at latest.

I. Thesis Degree Requirements:

A total of 30 semester hours is required, including:

CRIM 600	Criminological Theory	3 cr.
CRIM 601	Proseminar	3 cr.
CRIM 605	Research Methods	3 cr.
CRIM 610	Legal Issues in Criminology	3 cr.
CRIM 632	Organizational Dynamics within the Criminal Justice System	3 cr.
CRIM 718	Quantitative Strategies for Analysis in Criminology	3 cr.
CRIM 730	Ethical and Philosophical Issues in Criminology	3 cr.
CRIM 795	Thesis	6 cr.
———	Electives	3 cr.

Total 30 cr.

II. Non-Thesis Degree Requirements:

A total of 30 semester hours is required, including:

CRIM 600	Criminological Theory	3 cr.
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CRIM 601	Proseminar	3 cr.
CRIM 605	Research Methods	3 cr.
CRIM 610	Legal Issues in Criminology	3 cr.
CRIM 632	Organizational Dynamics within the Criminal Justice System	3 cr.
CRIM 718	Quantitative Strategies for Analysis in Criminology	3 cr.
CRIM 730	Ethical and Philosophical Issues in Criminology	3 cr.
CRIM 791	Synthesis Project	3 cr.
———	Electives	6 cr.

Total 30 cr.

MEd in Education

****This program has been placed in moratorium.****

This 36-credit, team-taught program is structured to address the educational needs of several types of graduate students who enter and proceed through the program as a cohort. The program's integrated curriculum is designed to prepare educators to be research oriented and to be more effective and innovative in classrooms, in schools, and in communities.

The six Thematic Units of 6 credits each include Community and Culture, Instruction and the Learner, Teacher as Researcher, Educational Change and Technology, Curriculum and Instruction, and Teacher as Leader. The program requires Internet access, which is available at IUP at no charge to students.

I. Required Thematic Units (36 cr.)

MEDU 761	Community and Culture	6 cr.
MEDU 762	Instruction and the Learner	6 cr.
MEDU 763	Teacher as Researcher	6 cr.
MEDU 764	Educational Change and Technology	6 cr.
MEDU 765	Curriculum and Instruction	6 cr.
MEDU 766	Teacher as Leader	6 cr.

MEd Special Education

The Department of Communication Disorders, Special Education, and Disability Services offers two graduate programs: Master of Education degree in Special Education and the Master of Science degree in Speech-Language Pathology. These programs are in accord with the current national standards of the Council for Exceptional Children and the American Speech-Language-Hearing Association, respectively.

The MEd program in Special Education is structured to address the educational needs of five types of graduate students: (a) those who hold Pennsylvania Mentally and/or Physically Handicapped certification; (b) those who hold another teaching certificate who wish to obtain Special Education Certification (either PreK-8th grades or 7th-12th grades) while working toward an MEd degree in Special Education; (c) those who hold another teaching certificate who wish to obtain Special Education Certification (either PreK-8th grades or 7th-12th grades)

without earning the MEd degree; and (d) those who do not want to qualify for a teaching certificate, but who wish to earn an MEd degree and work professionally with persons with disabilities.

The program intends to prepare graduates who will: a) implement curricula to meet individual needs of students with disabilities; b) demonstrate adaptability, flexibility, and initiative in meeting the changing needs of students with disabilities; c) use positive behavior management techniques; d) assess pupils strengths and limitations for instructional planning; e) practice diagnostic prescriptive instructional procedures; f) adapt special equipment for individuals; g) plan for and effective use paraprofessionals; h) engage in effective communication and collaborative partnerships; and i) apply professionalism and ethical practices.

Students working toward a master’s degree may select a thesis or a non-thesis option at an appropriate point in their program of studies. All MEd candidates must successfully complete a comprehensive examination as the terminal experience in their course of studies. For candidates wanting special education certification, individual programs of study will be designed based on review of transcripts.

Admission Criteria

Applications are due by March 15 for consideration for Summer/Fall acceptance and by October 15 for Spring acceptance.

Special Education—MEd and Special Education Certification

EDEX 569	Education of Persons with Emotional or Behavioral Disorders, Learning Disabilities, or Brain Injury	3 cr.
EDEX 578	Education of Persons with Mental Retardation, Developmental, Physical, or Multiple Disabilities	3 cr.
EDEX 558	Transition Assessment and Planning for Youth with Disabilities	3 cr.
EDEX 752	Assessment of Persons with Disabilities	3 cr.
EDEX 754	Advanced Instructional Design in Special Education	3 cr.
EDEX 755	Professional Collaboration and Team Building for Special Educators	3 cr.
EDEX 785	Practicum and Internship (severe)	3 cr.
GSR 615	Elements of Research	3 cr.
	Elective	3 cr.
	Elective	3 cr.
	Elective	3 cr.
	Elective	3 cr.
	Or	3 cr.
EDEX 795	Thesis (optional)	3 cr.

Total required 36 cr.

Note: Students may choose electives from an approved list including:

EDEX 515	Preschool Education for Children with Disabilities	3 cr.
EDEX 560	Family Perspectives on Disability	3 cr.
EDEX 753	Research Seminar in Special Education	3 cr.
EDSP 704	Advanced Educational Psychology	3 cr.

EDSP 746	Learning and Instruction	3 cr.
EDSP 747	Advanced Psychology of Adolescent Education	3 cr.
EDSP 748	Advanced Studies in Behavioral Problems	3 cr.
COUN 629	Group Procedures (Child)	3 cr.
COUN 639	Group Counseling	3 cr.

or other relevant courses with approval of the program coordinator.

These are minimum requirements. Additional coursework may be required depending on present certification (e.g., applicants with secondary education certification will be required to demonstrate competence in the teaching of reading, language arts, and math to students with disabilities). These requirements are determined at admission on a case-by-case basis.

Special Education Certification Only at the Graduate Level

Certificate Requirements*

EDEX 569	Education of Persons with Emotional or Behavioral Disorders, Learning Disabilities, or Brain Injury	3 cr.
EDEX 578	Education of Persons with Mental Retardation, Developmental, Physical, or Multiple Disabilities	3 cr.
EDEX 752	Assessment of Persons with Disabilities	3 cr.
EDEX 754	Advanced Instructional Design in Special Education	3 cr.
EDEX 785	Practicum and Internship (severe)	3 cr.
EDEX 558	Transition Assessment and Planning for Youth with Disabilities (required for 7-12 certification)	3 cr.
Or		
EDEX 755	Professional Collaboration and Team Building for Special Educators (required for PreK-8 certification)	3 cr.

Total Required 18 cr.

*PECT exams are also required to obtain PA certification. Minimum requirements: Additional coursework may also be required for PA certification.

The Special Education Certificate is an 18-credit program offered by the Special Education program in the Department of Communication Disorders, Special Education, and Disability Services. The program leads to PA certification in Special Education. Students choose from two options: Special Education Certification preK-8th grade or Special Education Certification 7th-12th grade. All students take courses related to characteristics of students with disabilities, effective instructional practices, and assessment. Students focusing on preK-8th grade are required to take a course on multi-disciplinary collaborations. Students focusing on 7th-12th grade are required to take a course on transition services. All students must complete a practicum experience during the summer.

The Special Education Certificate was designed for persons who have initial teaching certification in a content area such as Early Childhood Education, English Education, or Art Education. Eighteen credits are the minimum requirements for PA teacher certification in Special Education. Students who do not have prerequisite methods courses may be required to take additional courses; individual programs will be designed based on a review of transcripts.

Special Education – MEd-only program

EDEX 558	Transition Assessment and Planning for Youth with Disabilities	3 cr.
EDEX 752	Assessment of Persons with Disabilities	3 cr.
EDEX 753	Research Seminar in Special Education	3 cr.
EDEX 754	Advanced Instructional Design in Special Education	3 cr.
EDEX 755	Professional Collaboration and Team Building for Special Educators	3 cr.
EDEX 785	Practicum and Internship	3 cr.
EDEX 560	Family Perspective on Disabilities	3 cr.
GSR 615	Elements of Research	3 cr.
	Elective	3 cr.
	Elective	3 cr.
	or	
EDEX 795	Thesis	3 cr.

Total Required 30 cr.

Note: Students may choose electives from:

EDSP 704	Advanced Educational Psychology	3 cr.
EDSP 746	Learning and Instruction	3 cr.
EDSP 747	Advanced Psychology of Adolescent Education	3 cr.
EDSP 748	Advanced Studies in Behavioral Problems	3 cr.
COUN 629	Group Procedures (Child)	3 cr.
COUN 639	Group Counseling	3 cr.
EDEX 515	Preschool Education for Children with Disabilities	3 cr.

or other relevant courses with approval of the program coordinator.

MEd Educational Psychology

The Master of Education degree in the Educational Psychology Program (36 credits) has been designed to give the interested student a broad theoretical and practical background in the areas of education and psychology. The program will be of interest to those planning to pursue certification in school psychology after the master's degree, to those wishing to broaden their understanding of human development, educationally based interventions, and learning, or to those wishing to learn more about educational evaluation and research.

Admission Criteria

Admission to the master's degree program in educational psychology is based on an evaluation of undergraduate and graduate transcripts, letters of recommendation, GRE test scores, work history, professional goals, and personal characteristics as determined during the interview. No one criterion dominates in the admission decision, provided there is evidence of the basic ability to do graduate work. Applicants who have earned a master's degree in a closely related field of study may also apply and be considered for admission into the certificate in school psychology program. If a transcript review shows that a student with a master's degree has not had all necessary courses required to go on to the certification program, more courses at the master's level will have to be taken before the certification sequence is begun.

Students must maintain a grade point average of at least 3.25 and earn a grade of B or better in all core courses while enrolled in the program. Continuous enrollment is also required for the

master's degree unless waived by the Coordinator of the Certification Program and the School Psychology Committee.

All graduate students enrolled in this program are required to have Pennsylvania Criminal Record (Act 34) and Child Abuse Clearances (Act 151) as well as Act 114 (FBI Fingerprinting Record) prior to any placement in a school setting or intermediate unit. Applicants should be aware that some districts or intermediate units may not accept placements if any criminal record is reflected on these background checks. Applicants with a criminal record, even summary offenses, are required to disclose this history to their program upon entry to the program to facilitate placement. Some serious offenses, typically involving child welfare, preclude state certification.

Program Requirements

Coursework includes:

EDSP 704	Advanced Educational Psychology*	3 cr.
EDSP 745	Crisis Intervention and Psychological Counseling of Exceptional Children*	3 cr.
EDSP 755	Practicum I*	3 cr.
EDSP 746	Learning and Instruction*	3 cr.
EDSP 748	Advanced Studies in Behavioral Problems*	3 cr.
EDSP 781	Special Topics Group Counseling*	3 cr.
EDSP 789	Advanced Psychometric Theory*	3 cr.
EDSP 711	Introduction to School Psychology*	3 cr.
EDSP 813	Assessment for Intervention II*	3 cr.
EDEX 650	Education of Exceptional Persons and Youth	3 cr.
GSR 615	Elements of Research	3 cr.
---	Approved elective**	3 cr.

*Core courses for the MEd program

**All electives must be approved by the student's departmental advisor and may be chosen to enhance the student's interest in school psychology, human development and learning, or educational evaluation and research.

MA in Employment and Labor Relations

The Master of Arts in Employment and Labor Relations is a multidisciplinary, graduate-degree program designed to prepare professional practitioners in the field of employment and labor relations in public and private management, unions, government agencies, and neutral and service organizations. The 36-semester-hour program consists of a required core of 21 semester hours and elective course offerings totaling 15 semester hours.

In consultation with the advisor, each student will individually build the elective sequence of the program of study by choosing 15 elective semester hours from among employment and labor relations courses and courses approved by the advisor that are offered by other departments. Students are strongly encouraged to elect an internship to integrate theory and practice in the field.

Admission Criteria

Required:

1. Bachelor's degree from an accredited institution of higher learning.
2. Minimum QPA of 2.6 if graduated with a B.S. or B.A. within five years of the application date. If the bachelor's degree is older than five years, the minimum QPA required is 2.4.
3. Evidence of course work in statistics and research methodology and design.
4. Two letters of recommendation. If bachelor's degree was earned within five years, at least one letter must be from a faculty member or the dean/director of undergraduate program. If degree is older than five years, both letters must be from employers or professional colleagues. Personal letters of recommendation are not acceptable.
5. Satisfactory professional essay (minimum of two typewritten pages) to include a description of:
 - A significant professional accomplishment
 - Expectations of graduate study
 - Career goals

Program Requirements

I. Required Core (21 cr.)

ELR/HSAD 610	Employee Rights under Law	3 cr.
ELR 613	Fundamentals of the American Labor Movement: Theory and Practice	3 cr.
ELR 615	Dispute Settlement	3 cr.
ELR /HSAD 619	Advanced Research in Employment Relations and Health Services Administration	3 cr.
ELR 625	Processes of Collective Bargaining	3 cr.
ELR/HSAD 631	Human Resources Management in the Public Sector	3 cr.
ELR 641	Contract Administration	3 cr.

II. Elective Area (15 cr.)

Fifteen semester hours chosen from other elective courses in Employment and Labor Relations or from related departments with the approval of student's advisor and the chair of the department.

MA in English

The three MA in English programs at IUP respond to the needs of four groups of students: those interested in gaining a generalist background in graduate English studies, students wanting to concentrate on literature, students seeking secondary English certification or desiring to enhance their existing skills in teaching English, and students who want to teach English to speakers of other languages.

The MA in Literature and MA in Composition and Literature requires 30 credit hours, either of course work (ten courses) or a combination of course work and an internship or thesis. Each option has its own set of requirements for distributing those 30 hours, and each has its own admissions committee. Students applying for admission must indicate which degree option they wish to pursue.

The Composition and Literature (MA Comp- Lit) option is designed for students who wish to

combine coursework in composition and literary studies--the two primary subfields of the English discipline--in order to pursue teaching at the community-college level or for beginning advanced doctoral work. The literature (MA/LIT) option is for active professionals who wish to further their expertise in literature and for students who wish to prepare for work on a PhD in literature and criticism. Students in either program who complete Post-Baccalaureate English Certification will be qualified and certified to teach in postsecondary schools in Pennsylvania. The MA/TESOL option prepares students in the theory and practice of teaching English to speakers of other languages in a variety of settings within (English as a Second Language) and outside (English as a Foreign Language) the United States.

Program Requirements

MA/Composition and Literature

IUP's MA in Composition and Literature program offers courses during both summer sessions and during the academic year. As there is no specific residency requirement for the MA at IUP, students are not required to attend the program full time during the academic year; some of the work may be accomplished over the course of several summers—although certain courses required in several of the programs are offered only during the normal academic year. However, the final six credits must be taken at IUP. Students attending full time can complete the MA in Composition and Literature in as little as a single year or may spread their work out over two or three years. The MA in Composition and Literature thus offers the advantages of both professional focus and personal flexibility.

MA/Composition and Literature Course Requirements

I. Theory and Methods Courses (9 cr.)

ENGL 632	Composition Theory and Practice	3 cr.
ENGL 674	Research Trends in English	3 cr.
ENGL 676	Critical Approaches to Literature	3 cr.

II. Pedagogy and Praxis Courses (6 cr.)

Choose two courses:

ENGL 518	Adolescent Literature	3 cr.
ENGL 614	Critical Pedagogy	3 cr.
ENGL 730	Research and Practice in the Teaching of College Composition	3 cr.
ENGL 757	Digital Composition, Literature, and Pedagogy	3 cr.
ENGL 760	Teaching College Literature	3 cr.

III. Literature Electives (6 cr.)

Choose two courses:

ENGL 757	Digital Composition, Literature, and Pedagogy	3 cr.
ENGL 760	Teaching College Literature	3 cr.
ENGL 761	Topics in American Literature Before 1870	3 cr.
ENGL 762	Topics in American Literature After 1870	3 cr.
ENGL 763	Topics in British Literature Before 1660	3 cr.
ENGL 764	Topics in British Literature After 1660	3 cr.
ENGL 765	Topics in Literature as Genre	3 cr.

ENGL 766	Topics in Comparative Literature	3 cr.
ENGL 771	Topics in Postmodern Literature	3 cr.
ENGL 772	Topics in Women's Literature	3 cr.
ENGL 773	Topics in American or British Minority Literature	3 cr.

IV. Composition Electives (6 cr.)

Choose two courses:

ENGL 614	Critical Pedagogy	3 cr.
ENGL 705	Language and Social Context	3 cr.
ENGL 730	Research and Practice in the Teaching of College Composition	3 cr.
ENGL 734	Linguistics and the English Teacher	3 cr.
ENGL 742	Cross-Cultural Communications	3 cr.
ENGL 754	World Englishes in Composition and Applied Linguistics	3 cr.
ENGL 767	Research on Writing Centers and Writing Program Administration	3 cr.

V. Capstone (3 cr.)

ENGL 753	Literature as a Profession	3 cr.
or		
ENGL 698	Internship (for Ed option)	3 cr.

VI. Additional Optional Credits (3 cr.)

ENGL 795	Thesis	3 cr.
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VII. Non-Credit Requirements

Proof of attendance at 6 professionalizing events.

Minimum TOEFL (or equivalent) score of 560.

MA/Literature

The MA in Literature Program responds to the needs of four groups of students: Students interested in gaining a generalist background in graduate English studies, students wanting to concentrate on literature and research, students seeking secondary English certification or desiring to enhance their existing skills in teaching English, and students who want to teach English to speakers of other languages. Students who combine the M.A. in Literature program with a Post-Baccalaureate English Certification will be qualified and certified to teach in postsecondary schools in Pennsylvania.

The MA in Literature Program requires 30 credit hours, either of course work (ten courses) or a combination of course work and an internship or thesis. Each option has its own set of requirements for distributing those 30 hours, and each has its own admissions committee. Students applying for admission must indicate which degree option they wish to pursue.

IUP's MA in Literature offers courses during both summer sessions and during the academic year. As there is no specific residency requirement for the MA at IUP, students are not required to attend the program full time during the academic year; some of the work may be accomplished over the course of several summers—although certain courses required in

several of the programs are offered only during the normal academic year. However, the final six credits must be taken at IUP. Students attending full time can complete the MA in Literature degree in as little as a single year or may spread their work out over two or three years. Thus, the MA in English at IUP offers the advantages of both professional focus and personal flexibility.

MA/Literature Course Requirements:

I. Core Courses (9 cr.)

ENGL 674	Research Trends in English	3 cr.
ENGL 676	Critical Approaches to Literature	3 cr.
ENGL 753	Literature as a Profession	3 cr.
Or		
ENGL 698	Internship	3 cr.

II. Period Courses (9 cr.)

Choose three courses:

ENGL 761	Topics in American Literature Before 1870	3 cr.
ENGL 762	Topics in American Literature Since 1870	3 cr.
ENGL 763	Topics in British Literature Before 1660	3 cr.
ENGL 764	Topics in British Literature Since 1660	3 cr.

III. Courses in Approaches to the Literary Canon (3 cr.)

Choose one course:

ENGL 766	Topics in Comparative Literature	3 cr.
ENGL 771	Topics in Postmodern Literature	3 cr.
ENGL 772	Topics in Women’s Literature	3 cr.
ENGL 773	Topics in American or British Minority Literature	3 cr.

IV. Literature Electives (6 cr.)

Choose two courses:

ENGL 518	Young Adult Literature	3 cr.
ENGL 757	Digital Composition, Literature, and Pedagogy	3 cr.
ENGL 760	Teaching College Literature	3 cr.
ENGL 761	Topics in American Literature Before 1870	3 cr.
ENGL 762	Topics in American Literature Since 1870	3 cr.
ENGL 763	Topics in British Literature Before 1660	3 cr.
ENGL 764	Topics in British Literature Since 1660	3 cr.
ENGL 765	Topics in Literature as Genre	3 cr.
ENGL 766	Topics in Comparative Literature	3 cr.
ENGL 771	Topics in Postmodern Literature	3 cr.
ENGL 772	Topics in Women’s Literature	3 cr.
ENGL 773	Topics in American or British Minority Literature	3 cr.

V. Open Electives (3 cr.)

Three semester hours approved by the director of Graduate Studies in Literature from other

graduate offerings in Literature, courses in Composition and TESOL, or courses outside the department in a related and appropriate field.

Minimum TOEFL (or equivalent) score 560

MA/Teaching English to Speakers of Other Languages

The Master of Arts/Teaching English to Speakers of Other Languages (MA/TESOL) is designed to prepare students to teach English as a second or foreign language within the guidelines established by the professional organization, TESOL. The program combines theory and practice as well as a variety of approaches.

MA/Teaching English to Speakers of Other Languages Course Requirements:

I. Core Requirements (15 cr.)

ENGL 625	Introduction to TESOL	3 cr.
ENGL 644	ESOL Teaching Methodology, Materials, and Instructional Technology	3 cr.
ENGL 649	Introduction to Research in Applied Linguistics and TESOL	3 cr.
ENGL 724	Second Language Acquisition	3 cr.
ENGL 725	Second Language Literacy	3 cr.

II. Teacher Education Component (6 cr.)

Students take two of the following courses:

ENGL 688	Practicum in TESOL	3 cr.
ENGL 694	Observation of English Teaching	3 cr.
ENGL 696	Internship in ESL/EFL	3 cr.

III. TESOL Electives (9 cr.)

Students choose any three from the following courses:

ENGL 734	Linguistics and the English Teacher	3 cr.
ENGL 641	Topics in ESL Pedagogy	3 cr.
ENGL 699	Independent Study	3 cr.
ENGL 723	Second Language Teaching	3 cr.
ENGL 725	Second Language Literacy	3 cr.
ENGL 730	Research and Practice in the Teaching of College Composition	3 cr.
ENGL 742	Cross-Cultural Communication	3 cr.
ENGL 744	Reading Theory and the College English Teacher	3 cr.
ENGL 754	World Englishes in Composition and Applied Linguistics	3 cr.

IV. Open Electives (6 cr.)

Students choose two other courses (500 level or higher).

Total Credits 36 cr.

Doctor of Philosophy Programs: There are two distinct doctoral programs in English, one in Literature and Criticism and one in Composition and TESOL. Both programs lead to a Doctor of Philosophy in English.

MS in Food and Nutrition (Online)

The Master of Science degree program is designed to provide advanced training in food and nutrition through both course work and research. The program prepares students for food- and nutrition-related careers or to complement their existing occupations by increasing the depth of their knowledge with respect to food and nutrition, developing research skills, and enhancing their application skills by specializing in the area of applied human nutrition. Students choose either the thesis or non-thesis option and also between two tracks: (1) Administration, or (2) Education.

Graduates of the program are employed by hospitals, non-profit organizations, foodservice and hospitality industries, educational institutions, public health agencies, fitness facilities, and state and federal government. Students may continue their education to pursue doctoral degrees.

Admission Criteria

Students who enter the program usually have a baccalaureate degree in nutrition/dietetics or a health-related field. Those with degrees in areas such as education, other sciences, and culinary arts may also qualify and value a graduate degree in food and nutrition. In addition to the admissions application, all official transcripts, a goal statement, a resume, and letters of recommendation must be on file with the school of graduate studies and research prior to any department decision.

The department offers an accredited dietetic internship for those students interested in becoming a registered dietitian. Admission to this program requires a separate application and an accreditation council for education in nutrition and dietetics verification statement. Information can be obtained by contacting the food and nutrition dietetic internship program director.

Degree Requirements (36 cr.)

Thesis and Non-Thesis Degree Options are distinguished based on III. Research Requirement.

I. Core Courses (12 cr.)

FDNT 564	Nutrition Research Methods	3 cr.
FDNT 645	Proteins, Carbohydrates, Fats	3 cr.
FDNT 646	Vitamins	3 cr.
FDNT 647	Minerals and Water	3 cr.

II. Tracks – Select One (9 cr.)

A. Administration Track

FDNT 515	Sustainable Nutrition	3 cr.
FDNT 612	Administration of Food Service Systems	3 cr.
FDNT 625	Community Nutrition and Policy	3 cr.

B. Education Track

FDNT 630	Linking Nutrition Theory and Research to Practice	3 cr.
FDNT 631	Eating Behaviors and Food Habits	3 cr.
FDNT 635	Intervention and Education Strategies	3 cr.

III. Research Requirement (6 cr.)

All students must engage in research. Thesis option students will complete 6 credits of FDNT

795 Thesis. Non-thesis option students will enroll in FDNT 661 and FDNT 662.

FDNT 795	Thesis	6 cr.
OR		
FDNT 661	Designing Effective Food and Nutrition Research Projects	3 cr.
FDNT 662	Applying Food and Nutrition Research Methods	3 cr.

IV. Electives (9 cr.)

Students will elect additional courses from the IUP Graduate Catalog (including FDNT courses) that are appropriate for their needs and interests as they work toward meeting the program objectives. The Graduate Coordinator or Department Chair will approve elective courses.

FDNT 558	Advanced Human Nutrition	3 cr.
FDNT 642	Contemporary Issues in Food and Nutrition	3 cr.
FDNT 651	Professional Dietetic Practice	3 cr.
FDNT 696	Dietetic Internship	1-6 cr.
FDNT 698	Internship	1-6 cr.
FDNT 771	Lifecycle Nutrition	3 cr.
FDNT 773	Advanced Clinical Nutrition Therapy	3 cr.

MS in Geography

IUP's Department of Geography and Regional Planning offers graduate programs leading to the degree of Master of Science in geography. The MS program is designed to prepare students for a variety of careers as geographers in business, government, research, environmental, and planning organizations or for entry to a doctoral program at another university. Emphasis is placed upon developing professional competence in the tools, substance, methodology, and geographic theories.

Graduates of the program are employed by the state and federal government, city, county, and regional planning commissions, private consultant and engineering firms, business and industry, and colleges and universities. Knowledge of environmental processes, the organization and operation of the planning field, and geographic information systems is of value to the graduate in the job search.

Admission Criteria

Students who enter the program usually hold a bachelor's degree in geography or one of the social sciences. Persons with degrees in education, science, or business also may qualify and often find a degree in geography of value.

Program Requirements

The Master of Science program requires the student to complete a fifteen-credit track in GIS/Cartography, Regional Planning, or Environmental Planning. Each track includes two required courses and a list of options.

Selected courses in related fields may be applied toward the degree. All students will be expected to demonstrate proficiency in cartography in their thesis or portfolio. Both thesis and non-thesis options are available in the MS program. For students selecting the non-thesis option, a portfolio is an ungraded graduation requirement. A three-person faculty committee will evaluate the

portfolio, which will include at least three of the student's best pieces of work and written reflective analysis. The portfolio is submitted by the end of the first week of the semester the student is scheduled to graduate.

The graduate degree program requires a minimum of 33 semester hours of credit (including the thesis credits) for the thesis option or 39 hours for the non-thesis option. Three core courses must be included: GEOG 610, GEOG 612, and GEOG 614. Students may arrange an internship as part of their degree electives up to six credits.

I. Core Program (9 cr.)

GEOG 610	Research in Geography and Regional Planning	3 cr.
GEOG 612	Quantitative Techniques in Geography and Regional Planning	3 cr.
GEOG 614	Thought and Philosophy in Geography and Regional Planning	3 cr.

II. Tracks (Choose one)

A. GIS/Cartography Track (15 cr.)

Five courses from among the following:

GEOG 513*	Cartography	3 cr.
GEOG 514	Map and Photograph Interpretation	3 cr.
GEOG 515	Introduction to Remote Sensing	3 cr.
GEOG 516*	Introduction to GIS	3 cr.
GEOG 517	Technical Issues in GIS	3 cr.
GEOG 617	Field Techniques in Geography and Planning	3 cr.
GEOG 618	GIS Applications Development	3 cr.

* Required course for the track

B. Regional Planning Track (15 cr.)

Five courses from among the following:

GEOG 531	Population Geography	3 cr.
GEOG 532	Urban Geography	3 cr.
GEOG 533	Geography of Transportation and Trade	3 cr.
GEOG 534	Political Geography	3 cr.
GEOG 536	Social Geography	3 cr.
GEOG 550*	Introduction to Planning	3 cr.
GEOG 552*	Planning Methods	3 cr.
GEOG 554	Planning Design	3 cr.
GEOG 558	Land Use Law	3 cr.
GEOG 564*	Land Use Policy	3 cr.
GEOG 568	Planning Theory	3 cr.
GEOG 617	Field Techniques in Geography and Planning	3 cr.
GEOG 624	Technical Issues in GIS	3 cr.
GEOG 623	Regional Development	3 cr.
GEOG 625	Environmental Planning	3 cr.
GEOG 633	Settlement Geography	3 cr.
GEOG 665	Plan Implementation	3 cr.

PLSC 668	Public Sector Financial Administration	3 cr.
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* Required course for the track

C. Environmental Planning Track (15 cr.)

Five courses from among the following:

GEOG 515	Introduction to Remote Sensing	3 cr.
GEOG 516	Introduction to GIS	3 cr.
GEOG 540*	Conservation: Environmental Analysis	3 cr.
GEOG 541	Climatology	3 cr.
GEOG 542	Physiography	3 cr.
GEOG 558	Land Use Law	3 cr.
GEOG 564	Land Use Policy	3 cr.
GEOG 617	Field Techniques in Geography and Planning	3 cr.
GEOG 625*	Environmental Planning	3 cr.

* Required course for the track

III. Electives and/or Thesis (Choose one)

A. Thesis Option (9 cr.)

Electives in GEOG and related fields	3-8 cr.	
GEOG 795	Thesis	1-6 cr.

or

B. Non-Thesis Option (15 cr.)

- Electives in GEOG and related fields
- A three- or six-semester-hour internship may be included as an elective in the MS program

MEd in Health and Physical Education

The Master of Education in Health and Physical Education offers both a 33-credit thesis program and a 36-credit non-thesis program. This degree includes emphasis tracks tailored towards specific career goals. Within this program, students can focus on (1) K-12 Teacher Certification, (2) Community Health Education, (3) Adapted Physical Activity, or (4) Athletic Coaching.

K-12 Teacher Certification

Students interested in earning PA teacher certification in K-12 Health and Physical Education can apply to this program. The majority of coursework can be completed online or through video conferencing, perfect for the working adult. Students in this track are required to attend a 4-week summer residency at IUP and complete a 6-12 credit student teaching experience. Teachers who are certified in another area and wish to add health and physical education to their credentials only need to complete 6 semester hours of student teaching. Students certified in another K-12 content area will complete an internship experience

Community Health Education

Focused on advocating and instructing health-related topics in the community, government or private settings. Graduates can seek employment as leaders in agencies involved in the training and prevention of health related behaviors and conditions. Graduates will have the prerequisite knowledge eligible to sit for the National Commission for Health Education Credentialing

(NCHEC) Certified Health Education Specialist (CHES) exam.

Adapted Physical Activity

Designed for students who have an interest in working in school, community, or recreational settings where adapted physical activity programs are offered. Graduates will demonstrate the ability to develop, instruct, and assess programming for individuals with various disabilities. Graduates will have the prerequisite knowledge eligible to sit for the Adapted Physical Education National Standards (APENS) Certified Adapted Physical Education (CAPE) exam.

Athletic Coaching

Designed for students with career goals in athletic coaching at various levels. Graduates in this program will demonstrate the pedagogical knowledge and experience necessary to work as a leader in the sport coaching profession.

Admission Requirements

To be admitted to the Kinesiology, Health, and Sport Science Department, the applicant must have completed the requirements for a bachelor's degree from an accredited college or university and must fulfill the general requirements for admission to the School of Graduate Studies and Research for a master's degree. Selection of students will be through a screening process conducted by the Graduate Pedagogy Committee of the department. Other admission requirements to be admitted to the MEd in Health and Physical Education program include:

- Completion of undergraduate degree with a GPA of 3.0 or higher
- Passage of Praxis I exam for applicants not certified as teachers
- Current and acceptable Act 34 and 151 clearances
- Completion of TB test
- Completion of Speech and Hearing Test
- Current CPR Instructor Certificate
- Completion of aquatics course or approved certification program
- Completion of the following courses or approved course substitution:
 - Anatomy and Physiology
 - Exercise Physiology
 - Biomechanics or Kinesiology
 - 6 credits of mathematics
 - 3 credits of English composition
 - 3 credits of English literature
 - Educational Psychology
- Fulfillment of general requirements for admission to the School of Graduate Studies and Research for a master's degree
- Fulfillment of requirements set by the College of Education and Communications

Program Requirements

I. Core Courses (12 cr.)

KHSS 517	Contemporary Issues in School and Community Health	3 cr.
KHSS 634	Current Literature in Health, Fitness, and Sport	3 cr.
KHSS 640	Research Methods for Health, Sport, and Physical Activity	3 cr.
KHSS 680	Seminar	3 cr.

II. Tracks

A. Teacher Certification* (24 cr.)

KHSS 526	Health Science Instruction	3 cr.
KHSS 615	Program Design and Assessment in Health and Physical Education	3 cr.
KHSS 631	Motor Learning	3 cr.
KHSS 645	Advanced Teaching Techniques in Physical Education	3 cr.
KHSS 655	Health and Fitness for Elementary Children	3 cr.
KHSS 670	Advanced Seminar in Adapted Health Physical Education	3 cr.
KHSS 675	Fitness Technology for Health and Physical Educators	3 cr.
EDEX 650	Exceptional Children and Youth	3 cr.
OR		
An approved course in Special Education		

B. Community Health Education (12 cr.)

KHSS 520	Health Education and Promotion at the Workplace	3 cr.
NURS 610	Health Promotion and Social Issues	3 cr.
HSAD 605	Epidemiology in Health Service Administration	3 cr.
OR		
KHSS 672	Epidemiology of Physical Activity	3 cr.
KHSS 698	Internship	3 cr.

C. Adapted Physical Activity (12 cr.)

EDEX 650	Exceptional Children and Youth	3 cr.
KHSS 537	Coaching Disability Sport	3 cr.
KHSS 670	Advanced Seminar in Adapted and Physical Education	3 cr.
KHSS 698	Internship	3 cr.

D. Athletic Coaching Education (12 cr.)

KHSS 602	Sport Psychology	3 cr.
KHSS 603	Physiological Basis of Sport	3 cr.
KHSS 610	Coaching Management	3 cr.
KHSS 698	Internship	3 cr.

III. Electives and/or Thesis (Choose One)

A. Thesis Option (9 cr.)

KHSS 795	Thesis	6 cr.
Electives in KHSS or related fields.		3 cr.

B. Non-Thesis Option (12 cr.)

Electives in KHSS or related fields.		12 cr.
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*Students completing Track A: Teacher Certification do not require elective or thesis credits. Those students follow Professional Practice requirements outlined below.

Professional Practice for Teacher Certification (6-12 cr.)

Students seeking certification as health and physical education teachers must also student teach

as required by the Pennsylvania Department of Education. Students demonstrating acceptable levels of knowledge, skills, and disposition will be permitted to enroll in EDUC 421 and/or EDUC 441 Student Teaching. A review of student teaching applicant's graduate record will be conducted by the HPE Graduate Pedagogy Committee, which will determine if the student has met all requirements to move ahead with certification. Those who are determined to be deficient will not be permitted to student teach. They will receive a degree without Pennsylvania teaching certification. Those who are certified as elementary teachers will complete 6 credits in secondary student teaching. Those certified as secondary teachers will complete 6 hours of elementary student teaching. Non-certified students must complete both the elementary and secondary student teaching for a total of 12 credits. A culminating activity is required. The total credit hours for the teacher certification track is 36 credits, and the total credit hours with certification is 42-48 credits.

*Students seeking teaching certification in health and physical education who do not have prerequisite methods courses may be required to take additional courses. Individual programs will be designed based on a review of transcripts.

MS in Health Services Administration

The Master of Science in Health Services Administration degree will consist of 35 credits; 39 if the student completes a thesis. Courses will be offered by the Employment and Labor Relations, Nursing and Allied Health Professions, the MBA program and other departments. Students that anticipate continuing their education in a doctoral program could choose to complete a thesis instead of an elective course. The thesis would require 6 credit hours, bringing their degree total to 39 credits. These requirements meet the minimum master's degree requirements of the School of Graduate Studies and Research. The Master in Health Services Administration would prepare students for a wide variety of leadership positions within health services organizations in not-for-profit, for-profit, and government settings. The role of a health services administrator includes the specialized application of employment relations knowledge, the improvement of individual and public health, and the improvement of health delivery systems. The program would provide students with an effective balance of coursework in health services, employee relations, and research methodology that would enable them to excel in this role.

Admission Criteria

Required:

1. Bachelor's degree from an accredited institution of higher learning.
2. Minimum QPA of 3.0 if graduated with a B.S. or B.A. within five years of the application date. If the bachelor's degree is older than five years, the minimum QPA required is 2.6.
3. Evidence of course work in statistics and research methodology and design.
4. Two letters of recommendation. If bachelor's degree was earned within five years, at least one letter must be from a faculty member or the dean/director of undergraduate program. If degree is older than five years, both letters must be from employers or professional colleagues. Personal letters of recommendation are not acceptable.
5. Satisfactory professional essay (minimum of two typewritten pages) to include a description of:
 - A significant professional accomplishment
 - Expectations of graduate study
 - Career goals

Program Requirements

ELR/HSAD 631	Human Resource Management	3 cr.
HSAD 605	Epidemiology	3 cr.
HSAD 609	Ethics and Social Issues in Health Care	3 cr.
NURS/HSAD 614	Health Policy	3 cr.
ELR/HSAD 616	Health Law	3 cr.
ELR/HSAD 619	Research Methods in ELR	3 cr.
Or		
GSR 615	Elements of Research	3 cr.
NURS 622	The Practice of Nursing Research	3 cr.
----	An approved course in Research Methods	
NURS/HSAD 555	Informatics in Health Care	3 cr.
Or		
IFMG 640	Management Information Systems	3 cr.
----	An approved course in Information Science	
NURS/HSAD 730	Financial Management in Health Care	3 cr.
Or		
FIN 630	Financial Management (Pre-requisite FIN 310)	3 cr.
----	An approved course in Finance	
HSAD 761	Health Service Administration Capstone	3-6 cr.
Or		
NURS 731	Nursing Administration Capstone	3 cr.
NURS 732	Organizational Behavior in Health Care Administration	3 cr.
ELR/HSAD 698	Internship	
HSAD 795	Thesis	6 cr.
----	Elective approved by coordinator	

Elective 1: Organizational Behavior/Supervision – 3 cr.

ELR/HSAD 751	Conflict Resolution	
ELR 612	Labor Relations: Practice and Administration	
ELR 610	Employee Rights	
MGMT 613	Organizational Analysis (Prerequisite MGMT 310)	
---	An approved course in Organizational Behavior or Supervision	

Elective 2: Leadership Theory/Interpersonal Skills in Health Care – 3 cr.

NURS 619	Leadership Strategies in Nursing	
NURS 729	Nursing Administration	
ELR 640	Negotiations	
ELR/HSAD 751	Conflict Resolution	

Elective 3: Additional Elective to Support Organizational Behavior, Supervision/Leadership Theory and Interpersonal Skills – 3 cr.

----	Elective from the courses listed above or another elective	
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Total: 36 cr. (or 39 cr. with Thesis option)

Students enrolled in the Master of Science in HSAD will complete 39 credits (with thesis) or 36 credits (without thesis) for the degree. All students will complete 33 graduate credits in HSAD core courses. They may finish out the program either with a 3-credit elective or with a 6-credit thesis option. Students may choose electives from IUP courses that are appropriate for their needs and interests as they work toward meeting the program objectives. Advisors will approve elective choices.

MEd in Literacy and/or Reading Specialist Certification

The MEd in Literacy is a graduate program housed in the Department of Professional Studies in Education. This degree is offered to educators certified in teaching who are pursuing graduate studies in reading and literacy theories, research, and instructional practices.

The MEd in Literacy requires thirty-six credits. Students may also receive a Reading Specialist Certification by completion of twenty-seven credits within the master's program from categories A-C. Students may pursue a thesis option, enrolling for a six-credit thesis, LTCY 795, omitting the requirements from section D (Research) and an elective from section E.

Admission Criteria

Applicants to the program must meet the requirements for admission to the School of Graduate Studies and Research and must meet the following criteria:

- An applicant must hold a teaching certificate and have a cumulative undergraduate grade point average of 3.0 or one that is commensurate with the requirements of the Pennsylvania Department of Education.

Program Requirements

A. Literacy (21 cr.)

LTCY 600	Foundations of Literacy Instruction	3 cr.
LTCY 644	Issues and Trends in the Language Arts	3 cr.
LTCY 701	Assessment and Acceleration	3 cr.
LTCY 702	Reading and Writing in the Content Areas	3 cr.
LTCY 705	Organization and Administration of Reading/Writing Programs	3 cr.
LTCY 770	Practicum and Seminar for Reading Specialists I	3 cr.
LTCY 771	Practicum and Seminar for Reading Specialists II	3 cr.

B. Diversity (3 cr.)

LTCY 635	Literacy in Inclusive Classrooms	3 cr.
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C. Related Area (3 cr.)

LTCY 607	Instruction and Learning with Literature	3 cr.
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D. Research 6 cr. (3 cr. if selecting thesis option)

GSR 615	Elements of Research	3 cr.
LTCY 698	Analysis of Research in Literacy	3 cr.

E. Electives 3 cr. (omit if selecting thesis option)

EDSP 747	Advanced Psychology of Adolescent Education	3 cr.
ENGL 518	Literature for Adolescents	3 cr.
LTCY 648	Creativity and the Elementary School Child	3 cr.
LTCY 697	Seminar in Special Problems in Reading	3 cr.
LTCY 699	Independent Study in Reading Education	3 cr.
ENGL 690	Writing as a Way of Learning*	3 cr.

*With special permission from coordinator

Other current graduate courses that address literacy, learning, or reading/writing could be applicable as an elective.

MS in Applied Mathematics

The MS program in Applied Mathematics is designed to produce graduates who are marketable in industry, government, and education. The program is also appropriate for professionals who wish to add to their skills and for secondary mathematics and science teachers who wish to gain a deeper understanding of how mathematics and statistics can be used to solve applied problems. It also provides a solid background for those planning to enter a PhD program.

Faculty members offer courses in the areas of traditional applied mathematics, operations research, and statistics. The department houses its own computer facilities with which faculty and students engage in activities such as simulation and statistical analysis. Most classes are offered at times convenient for nontraditional students who wish to advance their careers in applied mathematics, secondary education, or statistics. Students have the option of writing a thesis or participating in an internship.

Admission Criteria

Applicants should have taken a calculus sequence, linear algebra, differential equations, and an introductory course in probability and statistics and should have computer programming experience.

Program Requirements**I. Core Courses* (15 cr.)**

MATH 545	Deterministic Models in Operations Research	3 cr.
MATH 546	Probabilistic Models in Operations Research	3 cr.
MATH 563	Mathematical Statistics I	3 cr.
MATH 564	Mathematical Statistics II	3 cr.
MATH 625	Analysis for Applied Mathematics	3 cr.

*Required unless comparable courses have been taken at the undergraduate level. (No more than 3 cr. may be waived from the total of 30 cr. of coursework.)

II. Controlled Electives† (15 cr.)

MATH 523	Complex Variables	3 cr.
MATH 547	Modeling and Simulation	3 cr.
MATH 551	Numerical Methods for Supercomputers	3 cr.
MATH 640	Numerical Mathematics	3 cr.
MATH 641	Ordinary and Partial Differential Equations	3 cr.

MATH 643	Graphs, Networks, and Combinatorics	3 cr.
MATH 645	Nonlinear Programming Models	3 cr.
MATH 647	Advanced Simulation	3 cr.
MATH 665	Applied Regression Analysis and Design of Experiments	3 cr.
MATH 667	Applied Statistical Methods	3 cr.

† At least 12 cr. must be at the 600 level.

III. Additional Electives‡

Other graduate-level mathematics courses may be selected with the approval of the student's advisor. Also, with the advisor's approval, up to six credit hours of graduate work may be taken in disciplines such as chemistry, computer science, economics, finance, management information systems, and physics.

‡ The MS in Applied Mathematics requires a minimum of 27 cr. of course work in addition to the research requirement listed below.

IV. Research Requirements (3-6 cr.)

Option I

MATH 795	Thesis	3 cr.
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Or

Option II

MATH 698	Internship	6 cr.
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Total 33-36 cr.

MS in Applied Mathematics, Community College Track

This track is designed to provide students who intend to teach at community colleges graduate mathematics contents and some teaching methodologies.

Program Requirements

I. Core Courses (15 cr.) (Same as the MS in Applied Mathematics)

MATH 545	Deterministic Models in Operations Research	3 cr.
MATH 546	Probabilistic Models in Operations Research	3 cr.
MATH 563	Mathematical Statistics I	3 cr.
MATH 564	Mathematical Statistics II	3 cr.
MATH 625	Analysis for Applied Mathematics	3 cr.

II. Controlled Electives (15 cr.)

Choose two courses (6cr.):

MATH 611	Algebra for Secondary Teachers	3 cr.
MATH 613	Probability and Statistics for Secondary Teachers	3 cr.
MATH 614	Pre-calculus and Discrete Math for Secondary Teachers	3 cr.
MATH 654	Teaching of Problem Solving in Mathematics Education	3 cr.

Choose two courses (6cr.):

MATH 640	Numerical Mathematics	3 cr.
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MATH 641	Ordinary and Partial Differential Equations	3 cr.
MATH 643	Graphs, Networks, and Combinatorics	3 cr.
MATH 645	Nonlinear Programming Models	3 cr.
MATH 665	Applied Regression Analysis and Design of Experiments	3 cr.
MATH 667	Applied Statistics Methods	3 cr.

Choose one courses (3cr.):

MATH 521	Advances Calculus I	3 cr.
MATH 523	Complex Variables	3 cr.
MATH 527	Topology	3 cr.
MATH 553	Theory of Numbers	3 cr.
MATH 576	Abstract Algebra I	3 cr.

III. Research Requirements (3-6 cr.)

Option I

MATH 795	Thesis	3 cr.
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Or

Option II

MATH 698	Internship	6 cr.
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Total 33-36 cr.

MEd Mathematics Education

The Master of Education in Mathematics Education is ideal for elementary, middle, and secondary school teachers. Its purpose is to provide an opportunity for graduate students to increase their knowledge of mathematics and pedagogy, as well as to become aware of research and innovations in mathematics education. Upon completion of the program, graduate students will be prepared to serve as leaders of mathematics education in their school districts or to pursue a doctoral degree in mathematics education. Completion of this degree meets the requirements for Level II certification. The program consists of 36 credits in four broad areas: Education and Educational Research (6 credits), Mathematics Education Core (12 credits), Mathematics Education Content (12 credits), and Mathematics Education Electives (6 credits). The program consists of two tracks – one track in Secondary Mathematics Education and one track in Elementary and Middle School Mathematics Education.

MEd in Mathematics Education – Secondary Mathematics Education Track

Note: All courses are 3 credits.

Note: All courses offered online.

I. Education and Educational Research (6 cr.)

GSR 615	Elements of Research
One of the following courses:	
EDSP 704	Advanced Educational Psychology
EDSP 746	Learning and Instruction
EDSP 747	Advanced Psychology of Adolescent Education

EDSP 748	Advanced Studies in Behavioral Problems
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II. Mathematics Education Core (12 cr.)

MAED 650	Curriculum and Instruction in Mathematics Education
MAED 654	Teaching Problem Solving in Mathematics Education
MAED 660	Survey of Research in Mathematics Education
One of the Following Courses:	
MAED 652	Differentiating Instruction in Secondary Mathematics Education
ELMA 652	Diagnosis and Remedial Teaching of Mathematics

III. Mathematics Education Content (12 cr.)

MAED 611	Algebra for Secondary Teachers
MAED 612	Geometry for Secondary Teachers
MAED 613	Probability and Statistics for Secondary Teachers
MAED 614	Pre-Calculus and Discrete Mathematics for Secondary Teachers
MAED 650	Themes in History of Mathematics

IV. Mathematics Education Electives (6 cr.)

ELMA 559	Computer Related Topics in Mathematics Education
MAED 616	Writing in Mathematics Education
MAED 681	Special Topics in Mathematics Education
MAED 698	Internship in Mathematics Education*
MAED 795	Thesis in Mathematics Education
Any course from Category III	

*The internship may be used to do preliminary work related to a thesis. This is by permission only.

MEd in Mathematics Education – Elementary and Middle Level Mathematics Education Track

Note: All courses are 3 credits.

Note: All Courses Offered Online

I. Education and Educational Research (6 cr.)

GSR 615	Elements of Research
One of the Following Courses:	
EDSP 704	Advanced Educational Psychology
EDSP 746	Learning and Instruction
EDSP 747	Advanced Psychology of Adolescent Education
EDSP 748	Advanced Studies in Behavioral Problems

II. Mathematics Education Core (12 cr.)

MAED 650	Curriculum and Instruction in Mathematics Education
MAED 654	Teaching Problem Solving in Mathematics Education
MAED 660	Survey of Research in Mathematics Education
One of the Following Courses:	

MAED 652	Differentiating Instruction in Secondary Mathematics Education
ELMA 652	Diagnosis and Remedial Teaching of Mathematics

III. Mathematics Education Content (12 cr.)

ELMA 517	Probability and Statistics for Elementary/Middle Level Teachers
ELMA 520	Patterns and Functions for Elementary/Middle Level Teachers
ELMA 556	Geometry for Elementary/Middle Level Teachers
ELMA 557	Number Theory for Elementary/Middle Level Teachers
ELMA 558	Logic and Logical Games for Elementary/Middle Level Teachers
ELMA 561	Discrete Math for Elementary/Middle Level Teachers
ELMA 571	Algebra for Elementary/Middle Level Teachers

IV. Mathematics Education Electives (6 cr.)

ELMA 559	Computer Related Topics in Mathematics Education
MAED 616	Writing in Mathematics Education
MAED 681	Special Topics in Mathematics Education
MAED 698	Internship in Mathematics Education*
MAED 795	Thesis in Mathematics Education

Any course from Category III

*The internship may be used to do preliminary work related to a thesis. This is by permission only.

MA in Music

The graduate program in music provides students with opportunities to improve skills as teachers or performers beyond the Bachelor's degree, leading to enhanced career opportunities or to doctoral study. The Department of Music offers the MA in music with two areas of specialization: Music Education or Performance.

The Music Education specialization offers students a range of experiences in music teaching and learning theory, assessment and improvement of teaching, administration of music programs, and technology applications in music teaching. This degree is designed to meet the needs of practicing teachers and is offered in a low-residency, online, part-time format. Students will take courses online during the fall and spring semesters, and will attend two intensive summer sessions on campus, where they will take classes that cannot be offered effectively online. As a culminating experience, students must complete pass a comprehensive examination.

The Music Performance specialization is designed to enhance individual musicianship, technique, and knowledge of a variety of musical styles, with the goal of preparing students for a career in the performing arts. Applicants may choose a principal performing area from conducting, all major instruments, or voice. The Performance degree allows the option of students to either give a recital or write a thesis as a culminating project. Students who may aspire to further academic training in music may elect to perform a recital and write a thesis for elective credit pending departmental approval.

Admission Criteria

In addition to meeting School of Graduate Studies and Research requirements, the applicant must meet Music Department admission requirements. All applicants must have an undergraduate degree with major in music or its demonstrated equivalent. Applicants for the Performance

degree must complete a satisfactory audition on their major instrument (specific audition requirements are available upon application). Applicants to the Masters of Arts in Music must demonstrate that they are certified to teach music in the K-12 public schools of a U.S. state, or that they have comparable certification in another country.

The department may request additional supporting evidence of adequate preparation in specific concentration areas. Once accepted to a specific program of study, all music graduate students will be required to take a diagnostic exam in music theory and history prior to attending classes, so that advisors may better direct the students in their degree programs.

Program Requirements

I. Music Education Specialization Core Courses (9 cr.)

LIBR 600	Bibliography of Music	3 cr.
MUSC 516	Analytical Techniques	3 cr.
And one of the following Music History Courses: MUHI 503, MUHI 504, MUHI 520, MUHI 521, or MUHI 525		3 cr.

II. Music Education Specialization (9 cr.)

MUSC 620	Foundations of Music Education	3 cr.
MUSC 631	Administration and Advocacy in Music Education	2 cr.
MUSC 636	Advanced Technology in Music Education	2 cr.
MUSC 640	Formative Assessment and Action Research in Music Education	2 cr.

III. Music Education Specialization Courses (6 cr.)

Students may choose from the following courses:

EDSP 523	Education Programming: Gifted Learners	3 cr.
EDSP 577	Assessment of Student Learning	3 cr.
EDSP 624	Social, Emotional, and Cultural Factors in the Education of Gifted Learners	3 cr.
EDEX 569	Education of Persons with Emotional, Behavioral Disorders, Learning Disabilities or Brain Injury	3 cr.
EDEX 578	Education of Persons with Mental Retardation, Developmental Disabilities and Physical/Multiple Disabilities	3 cr.
EDSP 704	Advanced Educational Psychology	3 cr.

IV. Music Education Specialization Electives (6 cr.)

Students may choose from the following courses:

MUSC 503	Practicum in String Pedagogy	1 cr.
MUSC 535	Music for the Exceptional Student	2 cr.
MUSC 537	Techniques for the Marching Band	2 cr.
MUSC 540-550	Summer Music Workshop	1-3 cr.
MUSC 628	Contemporary International Approaches to Elementary Music Education	2 cr.
MUSC 635	Psychology of Music Education	2 cr.
MUSC 501	Advanced Choral Conducting	2 cr.
MUSC 502	Advanced Instrumental Conducting	2 cr.

MUHI 503	Music of the Baroque Era	3 cr.
MUHI 504	Music of the Classical Era	3 cr.
MUHI 525	Nineteenth-Century Music	3 cr.
MUHI 520	Music Since 1900	3 cr.
MUHI 521	Topics in American Music	3 cr.
MUSC 575	Music Ensemble	1-3 cr.
MUSC 681	Special Topics	1-4 cr.
APMU 601-771	Applied Music Lessons	4 cr.
MUSC 795	Thesis	4 cr.

V. Comprehensive Examination (0 cr.)

Program Requirements

Music Performance Specialization

I. Core Courses (9 cr.)

MUSC 516	Analytical Techniques	3 cr.
LIBR 600	Bibliography of Music	3 cr.
And one of the following Music History Courses: MUHI 503, MUHI 504, MUHI 525, MUHI 520 or MUHI 521		3 cr.

II. Music Performance Specialization Applied Music Courses (12 cr.)

APMU 601-771	12 cr.
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III. Music Performance Specialization Music Ensembles (2 cr.)

MUSC 575	1 cr.
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(Must be taken for a minimum of two semesters.)

IV. Music Performance Specialization Electives* (4 cr.)

APMU, MUSC or MUHI prefix, 500 or above

V. Music Performance Specialization Culminating Project** (4 cr.)

MUSC 795	Thesis	4 cr.
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OR

APMU 740	Graduate Recital	4 cr.
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Total: 31 credits

*MUSC 575 may only be taken for a maximum of 2 elective credits.

**Flexibility is given to represent the requirements and priorities of the student and the major professor. If the recital option is chosen, Thesis could be selected as an elective subject with advisor approval

MS in Nursing

The program leading to a Master of Science degree in nursing is fully accredited by the Commission on Collegiate Nursing Education. It is designed to prepare the graduate for an advanced-practice nursing role as a nurse administrator or a nurse educator and serves as a foundation for doctoral study.

Upon completion of the degree the student is prepared to:

- Provide leadership that influences and contributes to the advancement of the nursing profession.
- Synthesize advanced skills and scientific knowledge into advanced nursing practice roles.
- Utilize new knowledge to provide high-quality health care, initiate change, and improve the practice of nursing.
- Evaluate the effectiveness of advanced nursing practice initiatives.

Course work builds on the knowledge and skills gained in a basic nursing education program. It provides the theoretical and practical knowledge required for advanced nursing practice in diverse settings within a rapidly changing health care system. Nurse administrators assume leadership roles in planning, organizing, and implementing care across the spectrum of health care settings. Nurse educators assume responsibility as nurse educators, patient educators, or nursing staff development in a variety of academic and health care settings.

Students may choose the 36-credit Nursing Administration track or Nursing Education track.

Admission Criteria

An applicant must have achieved a bachelor's degree and successful completion of a basic nursing program accredited by the Commission on Collegiate Nursing Education or the National League for Nursing Accrediting Commission, and have a current licensure as a registered nurse in any state in the U.S. Pennsylvania licensure is required before students begin clinical courses. Students should also have a minimum QPA of 3.0 (4.0 scale) if they graduated with the BSN within five years of the application date. If the bachelor's degree is older than five years, the minimum QPA required is 2.6. Evidence of course work in statistics and research methodology and design is also required. For international graduate students who do not meet the TOEFL requirements, consider the Provisional Admission Program through the American Language Institute Intensive English Program. Students who successfully complete nine credits through the Bridge program are eligible to waive the TOEFL/IELTS requirements. International transfer students who have successfully completed six graduate level transfer credits at another US college or university may be eligible to waive the TOEFL/IELTS requirement. Applicants must also meet the general requirements for admission to the School of Graduate Studies and Research. Additional admission requirements for registered nurses licensed outside the United States, its territories, or Canada are available from the Department of Nursing.

Program Requirements

I. Graduate Nursing Core (21 cr.)

NURS 610	Health Promotion and Social Issues	3 cr.
NURS 614	Health Policy and Advocacy	3 cr.
NURS 619	Leadership in Healthcare	3 cr.

NURS 623	Translating Research into Nursing Practice	3 cr.
NURS 628	Advanced Professional Role Development	3 cr.
NURS 629	Healthcare Quality and Safety	3 cr.
NURS/HSAD 555	Healthcare Informatics	3 cr.

II. Tracks

A. Administration Track Courses (15 cr.)

NURS 729	Nursing Administration	3 cr.
NURS 730	Financial Management in Health Care	3 cr.
NURS 744	Advanced Nursing Roles Capstone	3 cr.
NURS 732	Organizational Behavior in Health Care Administration	3 cr.
----	Elective or additional administrative track course	3 cr.

B. Nursing Education Track Courses (15 cr.)

NURS 721	Advanced Clinical Practice for the Nurse Educator	3 cr.
NURS 722	Measurement and Evaluation in Nursing Education	3 cr.
NURS 723	Program Development in Nursing Education	3 cr.
NURS 725	Teaching Strategies for Nursing Curricula	3 cr.
NURS 744	Advanced Nursing Role Capstone	3 cr.

Students in Administration may choose electives from IUP courses that are appropriate for their needs and interests as they work toward meeting the program objectives. Advisors will approve elective choices. Three credits of NURS 795 Thesis may be substituted for electives. Students who choose the thesis option may graduate with more than the required 36 credits.

Culminating Activity

As a program requirement, all students will develop a comprehensive portfolio project according to guidelines provided by the faculty.

Professional Science Masters in Applied and Industrial Chemistry

This program represents IUP's commitment to educating students to be the problem-solvers of tomorrow's industries. In addition to science proficiency courses, the student will take a set of Professional Development courses designed to augment the student's scientific knowledge with communication, business and management skills to better prepare students to meet the technology challenges of a company. The program will also prepare the student for advancement to management positions within the company.

General Admission Requirements

Students should have completed one year each of inorganic chemistry, analytical chemistry, organic chemistry, physical chemistry, general physics, and calculus. Students wishing to specialize in biochemistry should also have had an undergraduate course in biochemistry. A student deficient in the above areas of study may also be admitted, provided these deficiencies are made up concurrently with the student's graduate studies.

Program Requirements

I. The student must complete 12 credits from the following:

CHEM 511	Advanced Inorganic Chemistry	3 cr.
CHEM 521	Advanced Instrumental Methods of Analysis	3 cr.
CHEM 531	Organic Molecular Structure Determination	3 cr.
CHEM 535	Current Topics in Organic Chemistry	3 cr.
CHEM 542	Advanced Physical Chemistry	3 cr.
CHEM 560	Chemistry and Phys of Material	3 cr.
CHEM 561	Modern Diffraction	3 cr.
CHEM 581	Special Topics	3 cr.
CHEM 610	Inorganic Chemistry	3 cr.
CHEM 620	Analytical Chemistry	3 cr.
CHEM 623	Phys. and Chem. Methods of Separation	3 cr.
CHEM 630	Organic Chemistry	3 cr.
CHEM 646	Biochemistry	3 cr.
CHEM 662	Molecular Genetics of Eukaryotes	3 cr.
CHEM 681	Special Topics	3 cr.
BIOC 502	Advanced Biochemistry	3 cr.

II. Electives (3-6 cr.)*

CHEM 690	Research	3-6 cr.
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The student may, with the advice and approval of the advisor, select electives from chemistry, physics, biology, or mathematics.

III. Professional Development Courses (6-9 cr.)

The student, with the advice and approval of the advisor, is required to complete a minimum of six semester hours of non-science graduate level courses from the College of Business and Information Technology. Some possibilities include:

BLAW 633 Case Problems in Business Law 3 cr.

MGMT 551 International Management 3 cr.

MGMT 562 Applied Business Leadership Skills 3 cr.

MGMT 613 Organizational Analysis 3 cr.

QBUS 601 Data Analysis and Decision Making 3 cr.

IV. Research Experience and Internship (6 cr.)**

CHEM 600	Seminar	2 cr.
CHEM 799	Internship Experience	4 cr.

*At least 15 credits from the total of courses must come from 600-level or higher.

** Students who opt to do their internship experience with a faculty member should first enroll in CHEM 690 with that faculty member as the instructor of record.

***The PSM Coordinator provides guidance in exploring external internship sites, but the student is responsible for initiating and securing an internship with an industry supervisor. The internship experience must lead to an acceptable written report, approved by the student's

academic and industry supervisory committee. The student must present the results of experiences at a seminar open to all graduate students, faculty and members of the sponsoring company.

Professional Science Masters in Physics: Nano-science for Industrial Materials

Professionals with technical degrees in physics, chemistry, mathematics or engineering are the target audience for this degree. The PSM in Nano-science for Industrial Materials will provide the graduate with preparation to move into management positions within a company. This professional degree will include an industrial internship where the student will work with academic faculty and industry leaders to give the student practical experience in solving problems in technological business.

Program Requirements

Major must take two 600 level and two 500 level courses

I. Required Courses – 12 cr. selected from:

PHYS 520	Advanced Laboratory Practice	3 cr.
PHYS 531	Modern Physics	3 cr.
PHYS 545	Optics	3 cr.
PHYS 551	Electricity and Magnetism	3 cr.
PHYS 555	Computer Interfacing	3 cr.
PHYS 575	Physics of Semiconductor Devices	3 cr.
PHYS 657	Solid State Theory	3 cr.
PHYS 658	Physics and Applications of Industrial Materials	3 cr.

II. Electives – 3-6 cr.

The student, with the advice and approval of the advisor, may select electives from physics, chemistry, or mathematics. PHYS 690 Research Problems in Physics can provide a maximum of six semester hours towards the 30 semester hours necessary for the degree.

III. Professional Development Courses (6-9 cr.)

The student, with the advice and approval of the advisor, is required to complete a minimum of six semester hours of non-science graduate level courses from the College of Business and Information Technology.

IV. Research Experience and Internship (6 cr.)

A. PHYS 799 Internship Experience (4 cr.)

Students in the PSM program take 3-6 months internship. The Graduate PSM Coordinator provides guidance in exploring and selecting Internship sites. The student must formally initiate paperwork for the Internship with an Industry Supervisor. The internship may be completed in part in a laboratory at the university with the approval of the industry supervisor and the graduate coordinator. The internship experience must lead to an acceptable written report, approved by the students' academic and industry supervisory committees. The student must present the results of experiences at a seminar open to all graduate students, faculty members and the member of the sponsoring company.

B. PHYS 600 Method of Research in Physics (2 cr.)

MA in Public Affairs

The MA in Public Affairs program is designed for full-time and part-time students who are seeking or are currently engaged in professional careers as administrators, project directors, staff analysts, and supervisors in government and human service agency delivery systems, trade unions, and interest groups; teachers of the social studies; and those interested in international development and comparative administration or in becoming foreign service professionals.

Admission Criteria

The requirements for admission are (1) an undergraduate cumulative grade point average of 2.8 or better; (2) undergraduate course work in political science, economics, and public or international affairs or equivalent professional experiences (in some cases, this may require specific remedial course work that will not count toward degree requirements); (3) for international students, a TOEFL score of 550 or better.

Program Requirements

The MA in Public Affairs requires 36 or 39 graduate credits, including a thesis or a practicum. Students develop a core competence in methodology and in public administration and also select one of six interdisciplinary field specializations.

I. Methodology Core (6-9 cr.)

Students must complete both of the following two courses:

PLSC 500	Research Methods in Political Science*
PLSC 674	Analytical Techniques

Plus one additional course from the following:

CRIM 605	Research Methods
GEOG 612	Quantitative Techniques in Geography and Regional Planning
GSR 615	Elements of Research
SOC 761	Microcomputing Applications in Sociology

* A student whose undergraduate transcript shows a “B” or better in a political science research methods course AND who passes a research methods exam administered by the Political Science Department may petition the Master of Arts in Public Affairs coordinator for exemption from PLSC 500.

II. Public Administration Core (12 cr.)

Students must complete the following four courses:

PLSC 570	Introduction to Public Administration
PLSC 666	Public Policy Analysis
PLSC 668	Public Sector Financial Administration*
PLSC 671	Seminar in Public Administration

*Students pursuing the International Development Administration field specialization should substitute either PLSC 670 Foreign Policy Studies or PLSC 672 Comparative Political Studies or PLSC 675 International Political Economy for PLSC 668 Public Sector Financial Administration.

III. Field Specializations (15 cr.)

1. Local Government Management

A. Field Core (6 cr.)

PLSC 554	Metropolitan Problems
PLSC 555	Intergovernmental Relations

B. Electives (9 cr.)

GEOG 632	Urban Geography
GEOG 534	Political Geography
GEOG 564	Land Use Policy
ELR 621	Labor Relations
PLSC 631/ELR 631	Human Resources Management in the Public Sector
PLSC 678	Ethical Dimensions of Leadership

2. Human Resources Management

A. Field Core (9 cr.)

ELR 610	Employee Rights Under Law
PLSC 631/ELR 631	Human Resources Management in the Public Sector
ELR 632	Compensation Administration

B. Electives (6 cr.)

ELR 526	Case Studies in Labor-Management Relations
ELR 622	Discrimination in Employment
ELR 641	Contract Administration
ELR 751/851	Conflict Resolution

3. Planning and Regional Development

A. Field Core (6 cr.)

GEOG 550	Introduction to Planning
GEOG 552	Planning Methods

B. Electives (6 cr.)

GEOG 531	Population Geography
GEOG 554	Planning Design
GEOG 558	Land Use Law
GEOG 564	Land Use Policy
GEOG 568	Planning Theory
GEOG 614	Thought and Philosophy in Geography and Regional Planning
GEOG 623	Regional Development

4. Human Services Administration

A. Field Core (9 cr.)

SOC 711	Human Services Administration
SOC 754	Social Inequality
SOC 756	Social Change

B. Electives (6 cr.)

SOC 710	Sociology of Human Services
SOC 721	Sociology of Health Care
SOC 732	Addiction and the Family

SOC 757 Aging and Society

5. Criminal Justice Administration

A. Field Core (9 cr.)

CRIM 600 Criminological Theory

CRIM 610 Legal Issues in Criminology

CRIM 632 Organizational Dynamics within the Criminal Justice System

B. Electives (6 cr.)

CRIM 601 Proseminar

CRIM 765 Criminal Justice Planning and Evaluation

CRIM 770 Seminar in Contemporary Corrections

6. International Development Administration

A. Field Core (6 cr.)

PLSC 522 International Law and Organizations

PLSC 589 Developing Nations

B. Electives (9 cr.)

PLSC 582 Political Studies: Africa

OR

PLSC 583 Political Studies: Asia

OR

PLSC 584 Political Studies: Middle East

PLSC 675 International Political Economy

ECON 545 International Trade

ECON 546 International Payments

GEOG 531 Population Geography

GEOG 623 Regional Development

ELR 621 Labor Relations in the Public Sector

SOC 710 Sociology of Human Services

SOC 711 Human Services Administration

IV. Directed Research Requirement (3 cr.)

Students must complete one of the following:

PLSC 698 Political Science Internship 3 cr.

OR

PLSC 795 Thesis 3 cr.

OR

PLSC 699 Independent Study* 3 cr.

*Only allowed for students who are already employed in a relevant field. Must be approved by Graduate Coordinator.

Total Program Credit Hours: 36-39 credits

MA in Public History

The Department of History offers a 36 credit MA degree in Public History

In today's society the number of careers for historians outside of the field of teaching is rapidly growing. Historians are seeking employment in fields including careers in museum, archival, library work, public policy, tourism, cultural resource management, and travel. Historical societies provide editorial and administrative openings, and publishing companies hire historians for both sales and editorial services. The history graduate program is designed to provide students with training appropriate to a wide range of professional goals in the field of public history.

Admissions Criteria

Students seeking admission to the IUP Master of Arts degree in Public History program must meet the following minimum criteria:

- Cumulative GPA of 3.0
- Minimum of 12 undergraduate credits in history, with at least two history classes beyond the 200 level
- Minimum grade of 3.0 in undergraduate history courses
- Writing sample: minimum of five to 10 pages, focused on history or public history

In addition, applicants will need to provide a goal statement, official transcripts from all previous undergraduate and graduate institutions, and two letters of recommendations, in accordance with the IUP application requirements for the School of Graduate Studies and Research.

Program Requirements

Students are required to take HIST 614: Research Methods, HIST 605: Introduction to Public History, one section of HIST 601: History Seminar, six credits from public history courses (HIST 606, 770, 771, 772), and HIST 790: Seminar in Public History. Students are also required to take six credits of HIST 698: History internship. This internship may be taken as two three-credit courses or one six-credit course. Remaining courses are to be subject specific electives, with no more than six credits coming from outside the discipline (and with advisor approval), and no more than nine credits from 500-level courses.

A. Core Courses (18 cr.)

HIST 614	Research Methods	3 cr.
HIST 605	Introduction to Public History	3 cr.
HIST 601	History Seminar	3 cr.
HIST 790	Seminar in Public History	3 cr.
HIST 698	Internship	6 cr.

HIST 790: Seminar in Public History is the degree's capstone course.

B. Controlled Electives (6 cr.)

Select (6 cr. From the following list):

HIST 606	Topics in Public History	3 cr.
HIST 770	Archival Principles and Practice	3 cr.
HIST 771	Museum Studies	3 cr.
HIST 772	Oral History Theory and Method	3 cr.

If their schedule permits and the appropriate offerings exist, students may take more than six credits from the above selections.

The twelve remaining credits are filled as electives. No more than nine credits may be 500-level History courses. No more than six credits may be taken outside of the program. This credit allowance is given only with advanced permission and at the discretion of the History Department graduate advisor/program coordinator.

MS in Safety Sciences

The Department of Safety Sciences offers a 36 credit-hour program of study leading to a Master of Science degree in Safety Sciences. A capstone project is required. Students are required to complete a core set of courses and select elective courses, with the approval of their advisor, in fields directly related to safety sciences. A thesis option is available.

The program is designed for individuals with relevant experience in safety sciences and those with appropriate undergraduate preparation who are interested in pursuing careers in the profession.

Program Objectives

After completing the MS program in Safety Sciences, students will have:

1. Expanded their technical and managerial knowledge and skills of the safety, health, and environmental field.
2. Acquired advanced research and communication skills.
3. Enhanced their leadership skills.
4. Developed an understanding of their professional and ethical responsibilities within the safety, health, and environmental field.

Admission Criteria

Admission to the MS in Safety Sciences program requires the same admission procedures established for admission to the School of Graduate Studies and Research, that is, a baccalaureate degree with a minimum 2.6 CGPA.

In addition to meeting the requirements for admission to the School of Graduate Studies and Research, a student intending to work toward a Master of Science in Safety Sciences will be required to have the following prerequisite professional preparation: entry-level competency in safety management, occupational safety, industrial hygiene, and fire protection. Demonstration of these competency areas can be met through relevant education, work experience, certifications, additional coursework, or other means acceptable to the Safety Sciences Graduate Review Committee.

When the Safety Sciences Graduate Review Committee determines that a deficiency in work experience or relevant education exists, a student will be required to complete additional studies to eliminate the deficiency. At a minimum this will include college algebra, college chemistry with lab and college physics with lab. More information on admissions requirements is available from the Safety Sciences Department.

Program Requirements

Required Core Courses (24 cr.)

SAFE 602	Research Methods in Safety Management	3 cr.
SAFE 605	Application of Safety Engineering Principles	3 cr.
SAFE 610	Environmental Safety and Health Administration	3 cr.
SAFE 644	Preventing Unsafe Acts	3 cr.
SAFE 647	Applied Ergonomics	3 cr.
SAFE 660	Applied Industrial Hygiene	3 cr.
SAFE 774	Fire Safety in Building Design	3 cr.
SAFE 701	Environmental Impact Assessment and Documentation	3 cr.
SAFE 791	Capstone Project in Safety Sciences	1 cr.

Controlled Electives (12 cr.)

Choose a minimum of 12 credit hours

SAFE 520	Law and Ethics in the Safety Profession	3 cr.
SAFE 541	Accident Investigation	3 cr.
SAFE 542	Current Issues in Safety	3 cr.
SAFE 543	Construction Safety	3 cr.
SAFE 561	Air Pollution	3 cr.
SAFE 562	Radiological Health	3 cr.
SAFE 565	Right-to-Know Legislation	3 cr.
SAFE 581	Special Topics	3 cr.
SAFE 603	Human Relations in Safety Management	3 cr.
SAFE 604	Industrial Toxicology	3 cr.
SAFE 606	Hazardous Materials Management	3 cr.
SAFE 620	Safety Data Management	3 cr.
SAFE 621	Programming Safe Behavior	3 cr.
SAFE 623	Advanced Safety Administration	3 cr.
SAFE 624	Solving Safety Problems	3 cr.
SAFE 625	Risk Strategies for the SH&E Professional	3 cr.
SAFE 630	Pollution Control	3 cr.
SAFE 663	Industrial Hygiene Laboratory Methods	3 cr.
SAFE 664	Industrial Noise Control	3 cr.
SAFE 672	Process Safety in the Chemical Industries	3 cr.
SAFE 701	Environmental Impact Assessment and Documentation	3 cr.
SAFE 773	Disaster Preparedness	3 cr.
SAFE 681	Special Topics	3 cr.
SAFE 699	Independent Study	3 cr.
SAFE 795	Thesis	1 - 6 cr.

Other courses outside the department may be applied as controlled electives with the approval of the advisor. Electives will be offered on a rotating basis, but all will not be available during a two-year cycle.

MEd in School Counseling

Professional School Counselors (PreK-12) – To qualify for PreK-12 institutional endorsement and commonwealth certification, students must complete a 60-credit-hour, competency-based program to include a series of counseling skills courses, including practica at the elementary schools and secondary school levels, and complete a 600 hour field experience under the supervision of a Pennsylvania certified school counselor. The program is accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP) and the Council for the Accreditation of Educator Programs (CAEP).

Admission Criteria

While teaching experience is not a prerequisite for admission and school counselor certification in Pennsylvania, candidates for school certification must meet additional Pennsylvania Department of Education standards that include 3 additional credits in Special Education/Students with Disabilities and 2 credits in English Language Learners. These additional requirements can be met through previous undergraduate or graduate coursework. Applications for certification **MUST** show evidence of this coursework to be eligible for certification endorsement.

Prospective students for the Master of Education and school certification programs must meet departmental admissions requirements and procedures in addition to those of the School of Graduate Studies and Research. Prospective students should contact the department to determine these requirements. Applicants are required to attend an admission workshop as the final step in the admissions process. Applicants should contact the department to obtain the dates of deadlines for completed applications to be received by the School of Graduate Studies and Research.

Program Requirements

GSR 615	Elements of Research	3 cr.
COUN 613	Counseling Children	3 cr.
COUN 615	Counseling Across the Life Span	3 cr.
COUN 617	Basic Counseling Skills	3 cr.
COUN 618	Multicultural and Diversity Issues in Counseling	3 cr.
COUN 621	Introduction to Professional School Counseling	3 cr.
COUN 624	Assessment Procedures for School Counselors	3 cr.
COUN 628	Management of a Professional School Counseling Program	3 cr.
COUN 636	Career Counseling	3 cr.
COUN 637	Counseling Theories	3 cr.
COUN 639	Group Counseling	3 cr.
COUN 659	Secondary School Counseling Practicum	3 cr.
COUN 667	Elementary School Counseling Practicum	3 cr.
COUN 672	Counseling and Consulting within Systems	3 cr.
COUN 677	Crisis and Addictions Counseling	3 cr.
COUN 682	Counseling Students/Clients with Disabilities	3 cr.
COUN 720	Professional Orientation and Ethical Practice in Counseling	3 cr.
COUN 755	Field Experience in Counselor Education	6 cr.
---	Elective	3 cr.

Total 60 cr.

For current students, each year an evaluation of student academic, clinical, and professional competence will be made. Students will receive formal feedback based on the outcome of the evaluation results and a joint effort will be made to remediate any deficiencies. Serious deficiencies may result in recommendations for remedial work or termination from the program. Students must pass all practicum experiences with a B or better in order to advance to internship/field experience.

MA in Sociology

Advanced training in sociology should enable students to think insightfully and critically about society and human relationships and to serve more effectively in a variety of professions. The department's MA in Sociology prepares students for research professions, doctoral studies, teaching in the social sciences, as well as employment in human services, government agencies, corporations, higher education, and social research positions. Recent graduates are working as directors or supervisors in human services agencies, researchers, data analysts, and educators. The MA in Sociology is designed to prepare students for such opportunities.

Admission Criteria

In addition to School of Graduate Studies and Research admissions requirements, the applicants to the Sociology MA program should have completed at least 12 hours of undergraduate social science courses with an average of "B" or better. Students not meeting this requirement may be admitted if they agree to take additional undergraduate or graduate sociology courses designated by the department.

Program Requirements

Students select either a six-credit thesis option or a non-thesis option. Students selecting the thesis option must successfully complete a six-credit thesis (see requirements for the thesis listed under the catalog description for SOC 795). Including the six-credit thesis, the thesis option requires a total of 37 credit hours. The non-thesis option requires a total of 37 credit hours and successful completion of a portfolio.

Additional courses are available from other departments on related topics such as counseling, individual assessment, women's studies, criminology, cross-cultural studies, public policy and finance, community and urban planning, statistical analysis, and program evaluation. Up to nine credit hours may be taken outside the department. No more than one-third of a student's total credit hours may be dual-level (500-level) courses. Students who enrolled for dual-level courses while undergraduates at IUP may not repeat the same courses for credit as graduate students.

The Sociology Program is designed especially for those students preparing for research professions, doctoral studies, or teaching in the social sciences.

I. Required Core (16 cr.)

SOC 700	Proseminar	1 cr.
SOC 705	Research Seminar in Sociology	3 cr.
SOC 762	Analysis of Social Data	3 cr.
SOC 709	Contemporary Sociological Theory	3 cr.

SOC 707	Scholarly Writing in the Social Sciences	3 cr.
SOC 765	Qualitative Research Methods	3 cr.

II. Either:

A. (Thesis Option)

SOC 795	Thesis	6 cr.
Approved electives*		15 cr.

or

B. (Non-Thesis Option)

Approved electives*	21 cr.
Portfolio	0 cr.

*No more than 9 semester hours of approved electives may be from outside the department.

MS in Speech-Language Pathology

The IUP Master of Science (MS) degree program in Speech-Language Pathology is accredited by the Council on Academic Accreditation of the American Speech-Language-Hearing Association (ASHA).

The MS curriculum combined with an undergraduate degree in communication disorders meets the academic and clinical requirements for the Certificate of Clinical Competence from ASHA, Pennsylvania Licensure in Speech-Language Pathology, and Educational Specialist Certification by the Pennsylvania Department of Education. Applicants who do not have an undergraduate degree in communication disorders must complete the necessary prerequisites before applying for graduate admission.

Admission Criteria

Admission Policy: The Graduate Admissions Committee will review applicants for admission who provide 1) GRE scores, 2) an undergraduate degree with a GPA of 3.0 or higher, 3) prerequisite coursework in speech-language pathology, 4) two letters of recommendation, 5) a written response to the provided prompt, and 6) an interview with the program’s admissions committee. Applicants must also meet the program’s technical standards and professional dispositions.

Due to the competitive nature of graduate admissions, preference is given to applicants who have an undergraduate degree in communication disorders with a GPA of 3.6 or higher, Verbal and Quantitative GRE scores of 145 or higher and 3.5 or higher for Writing, strong letters of recommendation from academic faculty in communication disorders, and excellent communication skills during the interview.

Essential undergraduate courses with a letter grade of “C” or below will not be accepted as prerequisites for graduate study and considered as a course deficiency. Documentation of 25 hours of supervised observation and state and federal clearances must be completed prior to beginning the master’s program.

In addition to the stated application requirements, applicants who are non-native English speakers must achieve a score at the ninetieth percentile or higher on oral and written subtests of the TOEFL. Observation hours and clinical practicum completed in another country will be

accepted only if they have been supervised by a speech-language pathologist who holds the appropriate certification from ASHA.

Retention in the Program

In order to remain in good standing, students in the SPLP program must meet the following criteria:

1. A grade point average (GPA) of 3.25 is considered the minimum level of academic performance for all SPLP graduate students.
2. Clinical practicum courses must be completed with a grade of “B” or higher to meet the requirements for graduation. Furthermore, the practicum hours in clinical courses with a grade of “C” or lower will not apply to ASHA certification or state licensure requirements.
3. An overall clinical practicum grade of “B” or better must be obtained in the two clinics immediately prior to participating in an externship. If a grade of “C” or lower is earned in any of these semesters, it will delay and may preclude an externship placement.
4. The SLP-MS program requires that students repeat any course that resulted in a final grade of F, because all coursework is required for certification and licensure in the field. The IUP SGSR Repeat Policy will be enforced. Students with a grade of F in a course will not be approved for externship placement until they repeat the course and achieve a C or better grade. See below for policies regarding externship placement.
5. Only one course or clinic may be repeated, and only one time.
6. No person will be granted a degree who has more than one “C” grade in graduate courses in Speech-Language Pathology or Audiology, regardless of the number of credits for the course.
7. Students must demonstrate all the Technical Standards and Professional Dispositions.

Students who fail to meet these criteria will be placed on academic and/or clinical probation and will have a remediation plan to address deficiencies. The graduate faculty will review the status of each student on probation at the end of each semester or on the timeline outlined in the remediation plan. A student who fails to obtain at least a 3.25 cumulative average by the end of the probationary semester will be dismissed from the program.

National Examination

Prior to receiving their degree, students must pass the National Examination in Speech-Language Pathology and provide evidence of the attempt to the graduate coordinator. The examination should be taken during the last semester of enrollment. If a student does not attain a passing score prior to graduation, the student must pass comprehensive examination questions determined by areas of weakness on the National Examination.

Program Requirements

Candidates for the Master of Science degree must meet the academic and practicum requirements for the Certificate for Clinical Competence in Speech-Language Pathology awarded by the American Speech-Language-Hearing Association. 51 hours are required for the degree.

Required Courses:

GSR 615	Elements of Research	3 cr.
SPLP 604	Diagnostic Methods	3 cr.
SPLP 610	Articulation	3 cr.
SPLP 614	Neuropathologies of Speech & Swallowing	3 cr.
SPLP 616	Stuttering	3 cr.
SPLP 618	Voice	3 cr.
SPLP 630	Language Disorders of Children	3 cr.
SPLP 632	Neurological Communication Disorders	3 cr.
SPLP 635	Seminar in Communication (1-3 cr.)	9 cr.
SPLP 661	Advanced Clinical Practicum (2 cr., repeat once)	4 cr.
SPLP 662	Diagnostic Clinic	1 cr.
SPLP 663	Hearing Testing Clinic	1 cr.
SPLP 796	Internship in Healthcare Organizations	6 cr.
SPLP 798	Internship in Schools	6 cr.
SPLP 795	Thesis (may substitute for 3 cr. of seminar)	3 cr.

MS in Sport Science

The Master of Science degree in Sport Science is designed to meet the needs of students from nonteaching professions, as well as from the teaching profession. The program is discipline-specific with provision for students to choose from among different academic tracks: Sport Management, Exercise Science, and Sport Studies.

According to their selected program of study, students are prepared for a variety of competitive employment opportunities, including management and administration of sport and athletic programs, corporate and community health and fitness facilities, hospital and medical-based exercise programs, and recreational programs in school and community settings.

Admission Criteria

To be admitted to the Kinesiology, Health, and Sport Science Department, the applicant must have completed the requirements for a bachelor's degree from an accredited college or university and fulfill the general requirements for admission to the School of Graduate Studies and Research for a master's degree. A minimum TOEFL score of 540 (paper-based) which converts to a computer-based score of 193 is necessary for international students.

Program Requirements**Sport Management Track****I. Thesis Track****A. Core Courses (9 cr.)**

KHSS 602	Sport Psychology	3 cr.
KHSS 634	Current Literature in Health, Fitness, and Sport	3 cr.
KHSS 640	Research Methods for Health, Sport, and Physical Activity	3 cr.

B. Required Courses (24 cr.)

KHSS 601	Sport and Society	3 cr.
KHSS 635	Sports Leadership	3 cr.
KHSS 637	Sport Facilities Management	3 cr.
KHSS 652	Globalization of Sports Business	3 cr.
KHSS 795	Thesis	6 cr.
BTST 670	Organizational Communications	3 cr.
ELR/HSAD 631	Human Resources Management in the Public Sector	3 cr.

C. Electives (3 cr.)

KHSS 513	Physical Activity and Aging	3 cr.
KHSS 603	Physiological Basis of Sport	3 cr.
KHSS 610	Coaching Management	3 cr.
KHSS 625	Management Concept in Fitness	3 cr.
KHSS 632	Assessment of Human Physiological Functions	3 cr.
KHSS 641	Administration of Aquatic Programs	3 cr.
KHSS 642	Design and Operation of Aquatic Facilities	3 cr.
KHSS 673	Strength and Conditioning for Individual and Team Athletes	3 cr.
KHSS 680	Seminar	3 cr.
ELR 615	Dispute Settlement	3 cr.
ELR 640	Negotiations	3 cr.
ELR 651	Conflict Resolution	3 cr.

Total 36 cr.

II. Non-Thesis Track**A. Core Courses (9 cr.)**

KHSS 602	Sport Psychology	3 cr.
KHSS 634	Current Literature in Health, Fitness, and Sport	3 cr.
KHSS 640	Research Methods for Health, Sport, and Physical Activity	3 cr.

B. Required Courses (21 cr.)

KHSS 601	Sport and Society	3 cr.
KHSS 635	Sports Leadership	3 cr.
KHSS 637	Sport Facilities Management	3 cr.
KHSS 652	Globalization of Sports Business	3 cr.
KHSS 660	Governance of Intercollegiate Athletics	3 cr.
KHSS 698	Internship	3 cr.
ELR /HSAD 631	Human Resources Management in the Public Sector	3 cr.

C. Elective Courses (6 cr.)

KHSS 512	Physical Activity and Stress Management	3 cr.
KHSS 513	Physical Activity and Aging	3 cr.

KHSS 603	Physiological Basis of Sport	3 cr.
KHSS 610	Coaching Management	3 cr.
KHSS 625	Management Concept in Fitness	3 cr.
KHSS 641	Administration of Aquatic Programs	3 cr.
KHSS 642	Design and Operation of Aquatic Facilities	3 cr.
KHSS 680	Seminar	3 cr.
ELR/HSAD 610	Employee Rights under Law	3 cr.
ELR 615	Dispute Settlement	3 cr.
ELR 625	Collective Bargaining	3 cr.
ELR 640	Negotiations	3 cr.
ELR 651	Conflict Resolution	3 cr.
MGMT 503	Small Business Planning	3 cr.
MGMT 613	Organizational Analysis	3 cr.
MKTG 603	Marketing Management	3 cr.
GSR 615	Elements of Research	3 cr.
ECON 50	Foundations of Modern Economics	3 cr.

Students may select another graduate-level elective with advisor permission.

Total 36 cr.

Exercise Science Track

Clinical/Research Concentration

I. Thesis Track

A. Core Courses (9 cr.)

KHSS 602	Sport Psychology	3 cr.
KHSS 634	Current Literature in Health, Fitness, and Sport	3 cr.
KHSS 640	Research Methods for Health, Sport, and Physical Activity	3 cr.

B. Required Courses (24 cr.)

KHSS 514	Exercise Electrocardiography	3 cr.
KHSS 515	Lifestyle Behavior Management for Physical Activity	3 cr.
KHSS 620	Exercise Prescription for Chronic Diseases	3 cr.
KHSS 632	Assessment of Human Physiological Functions	3 cr.
KHSS 643	Advanced Exercise Physiology	3 cr.
KHSS 672	Epidemiology of Physical Activity	3 cr.
KHSS 795	Thesis	6 cr.

C. Electives (3 cr.)

KHSS 513	Physical Activity and Aging	3 cr.
KHSS 516	Functional Strength Training	3 cr.
FDNT 645	Fats, Carbohydrates, Proteins	3 cr.
FDNT 646	Vitamins and Minerals	3 cr.
KHSS 672	Epidemiology of Physical Activity	3 cr.

Students may select another graduate-level elective with advisor permission

Total 36 cr.

II. Non-Thesis Track

A. Core Courses (9 cr.)

KHSS 602	Sport Psychology	3 cr.
KHSS 634	Current Literature in Health, Fitness, and Sport	3 cr.
KHSS 640	Research Methods for Health, Sport, and Physical Activity	3 cr.

B. Required Courses (27 cr.)

KHSS 514	Exercise Electrocardiography	3 cr.
KHSS 515	Lifestyle Behavior Management for Physical Activity	3 cr.
KHSS 620	Exercise Prescription for Chronic Diseases	3 cr.
KHSS 625	Management Concepts in Fitness	3 cr.
KHSS 632	Assessment of Human Physiological Functions	3 cr.
KHSS 643	Advanced Exercise Physiology	3 cr.
KHSS 672	Epidemiology of Physical Activity	3 cr.
KHSS 680	Seminar	3 cr.
KHSS 698	Internship	3 cr.

Total 36 cr.

Exercise Science Track

Strength and Conditioning Concentration

I. Thesis Track

A. Core Courses (9 cr.)

KHSS 602	Sport Psychology	3 cr.
KHSS 634	Current Literature in Health, Fitness, and Sport	3 cr.
KHSS 640	Research Methods for Health, Sport, and Physical Activity	3 cr.

B. Required Courses (24 cr.)

FDNT 558	Advanced Human Nutrition	3 cr.
KHSS 625	Management Concepts in Fitness	3 cr.
KHSS 632	Assessment of Human Physiological Functions	3 cr.
KHSS 643	Advanced Exercise Physiology	3 cr.
KHSS 673	Strength & Conditioning Techniques for the Individual & Team Athlete	3 cr.
KHSS 674	Functional & Tactical Strength & Conditioning: Theory & Practice	3 cr.
KHSS 795	Thesis	6 cr.

C. Electives (3 cr.)

KHSS 513	Physical Activity and Aging	3 cr.
KHSS 516	Functional Strength Training	3 cr.
FDNT 645	Fats, Carbohydrates, Proteins	3 cr.

FDNT 646	Vitamins and Minerals	3 cr.
KHSS 672	Epidemiology of Physical Activity	3 cr.

Students may select another graduate-level elective with advisor permission

Total 36 cr.

II. Non-Thesis Track

A. Core Courses (9 cr.)

KHSS 602	Sport Psychology	3 cr.
KHSS 634	Current Literature in Health, Fitness, and Sport	3 cr.
KHSS 640	Research Methods for Health, Sport, and Physical Activity	3 cr.

B. Required Courses (24 cr.)

FDNT 558	Advanced Human Nutrition	3 cr.
KHSS 625	Management Concepts in Fitness	3 cr.
KHSS 632	Assessment of Human Physiological Functions	3 cr.
KHSS 643	Advanced Exercise Physiology	3 cr.
KHSS 673	Strength & Conditioning Techniques for the Individual & Team Athlete	3 cr.
KHSS 674	Functional & Tactical Strength & Conditioning: Theory & Practice	3 cr.
KHSS 680	Seminar	3 cr.
KHSS 698	Internship	3 cr.

C. Elective Courses (3 cr.)

KHSS 513	Physical Activity and Aging	3 cr.
KHSS 516	Functional Strength Training	3 cr.
FDNT 645	Fats, Carbohydrates, Proteins	3 cr.
FDNT 646	Vitamins and Minerals	3 cr.
KHSS 672	Physical Activity Epidemiology	3 cr.

Students may select another graduate-level elective with advisor permission.

Total 36 cr.

Sport Studies Track

I. Thesis Degree Track

A. Core Courses (9 cr.)

KHSS 602	Sport Psychology	3 cr.
KHSS 634	Current Literature in Health, Fitness, and Sport	3 cr.
KHSS 640	Research Methods for Health, Sport, and Physical Activity	3 cr.

B. Required Course (15 cr.)

KHSS 601	Sport and Society	3 cr.
KHSS 603	Physiological Basis of Sport	3 cr.
KHSS 680	Seminar	3 cr.

KHSS 795	Thesis	6 cr.
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C. Elective Courses (12 cr.)

KHSS 513	Physical Activity and Aging	3 cr.
KHSS 515	Lifestyle Behavior Management and Physical Activity	3 cr.
KHSS 603	Physiological Basis of Sport	3 cr.
KHSS 610	Coaching Management	3 cr.
KHSS 625	Management Concept in Fitness	3 cr.
KHSS 632	Assessment of Human Physiological Functions	3 cr.
KHSS 635	Sport Leadership	3 cr.
KHSS 637	Sport Facilities Management	3 cr.
KHSS 641	Administration of Aquatic Programs	3 cr.
KHSS 642	Design and Operation of Aquatic Facilities	3 cr.
KHSS 652	Globalization of Sport Business	3 cr.
KHSS 660	Governance of Intercollegiate Athletics	3 cr.
KHSS 673	Strength and Conditioning for Individual and Team Athletes	3 cr.
KHSS 698	Internship	3 cr.
ELR 615	Dispute Settlement	3 cr.
ELR 640	Negotiations	3 cr.
ELR 651	Conflict Resolution	3 cr.

Students may select another graduate-level elective with advisor permission.

Total 36 cr.

II. Non-Thesis Track

A. Core Courses (12 cr.)

KHSS 602	Sport Psychology	3 cr.
KHSS 634	Current Literature in Sport	3 cr.
KHSS 640	Research Methods for Health, Sport, and Physical Activity	3 cr.

B. Required Courses (6 cr.)

KHSS 601	Sport and Society	3 cr.
KHSS 603	Physiological Basis of Sport	3 cr.

C. Elective Courses (21 cr.)

Students may select graduate-level electives with advisor permission. Twelve credits must be KHSS graduate-level courses.

Total 36 cr.

MS in Strategic Communication

The Master of Science in Strategic Communication is a 36-credit program designed to serve current and aspiring communication professionals by combining writing, research, and production. The program prepares students to pursue a variety of careers in professional communication including crisis communication, communication management, political

communication, health communication and strategic online messaging. Students will complete a core of required courses (15 credits) that will include: Theories and Principles of Strategic Communication, Writing for Strategic Communication, Multimedia Content Development and Production, and Elements of Research. The program offers an additional 15 credits of elective courses. The remaining courses will be chosen from one of two tracks, an applied track and a research track. The applied track includes a six-credit internship and the research track includes a six-credit thesis as the culminating experience.

Program Requirements

The Master of Science in Strategic Communication is a 36-credit program designed to serve current and aspiring communication professionals by combining writing, research, and production. The program prepares students to pursue a variety of careers in professional communication including crisis communication, communication management, political communication, health communication and strategic online messaging. Students will complete a core of required courses (15 credits) that will include: Theories and Principles of Strategic Communication, Writing for Strategic Communication, Multimedia Content Development and Production, and Elements of Research. The remaining 3 credits of the core will include advanced research or advanced production, depending on the track the student chooses, either applied or research track. The applied track will require Advanced Strategic Writing and Production and an Internship. The research track will require Advanced Research in Strategic Communication and a thesis.

An additional 15 credits of elective courses will include topics such as Crisis Communication, Health Communication, Global Strategic Communication and Persuasion. The program will provide an option for a six-credit thesis or internship as the culminating experience. The research track is designed to prepare students for doctoral study.

MS in Strategic Communication (36 credits)

I. Core Courses (15 credits)

COMM 511	Theories and Principles of Strategic Communication
COMM 512	Writing for Strategic Communication
COMM 513	Multimedia Content Development and Production
GSR 615	Elements of Research
COMM 713	Advanced Strategic Communication Writing and Production (or)
COMM 715	Research Development in Strategic Communication

II. Elective Courses (15 credits)

COMM 611	The Strategic Communicator
COMM 612	Persuasion
COMM 613	Strategic Communication and Online Media Campaigns
COMM 712	Global Strategic Communication
COMM 714	Crisis Communication
COMM 720	Political Communication
COMM 745/845	Health Communication

III. Thesis/Internship (6 credits)

COMM 793	Internship (or)
COMM 795	Thesis

Total 36 cr.

MA in Student Affairs in Higher Education

The Department of Student Affairs in Higher Education (SAHE) houses one graduate program, offering the MA degree in Student Affairs in Higher Education.

The SAHE program is designed to prepare graduate students for employment in higher education in entry-level or mid-management student affairs positions, dependent upon their previous experiences. Graduates will fill professional positions in two- and four-year colleges and universities in areas such as admissions, housing and residence life, student development programs, student activities, financial aid, career planning and development, and academic advising or other program areas.

Under the guidance of student affairs faculty and practitioners, requisite knowledge will be acquired through a balance of academic and practical experiences which stress critical thinking and encourage the development of professional behavior. Students will develop a broad range of skills, in-depth knowledge, and the ability to apply concepts and skills as effective practitioners. The program is organized in cohort groupings of students enrolled in a curriculum offering foundational and theory courses in the first year and application courses in the second year.

Admission Criteria

Admission into the program can be from any undergraduate major, provided that students have demonstrated scholarship and the potential for success in advanced studies. A minimum of 42 hours (33 required course hours and 9 hours of electives or thesis) and the successful completion of a portfolio are required to earn the degree. Electives courses are drawn from the courses offered by the SAHE Department. Students may also take SAHE 731 a third time or GSR 615 as an elective. This degree is typically earned over two years of full-time study in daytime classes.

In addition to graduate school admissions requirements, the SAHE program requires a personal interview. All graduate assistant candidates must come to campus for personal interviews. Admissions interviews can run concurrently with assistantship interviews.

Program Requirements

I. Core Courses (33 cr.)

First Year

SAHE 621	History of Higher Education in the United States	3 cr.
SAHE 624	Student Affairs Functions in Higher Education	3 cr.
SAHE 625	Student Development in Higher Education I	3 cr.
SAHE 631	Student Development in Higher Education II	3 cr.
SAHE 735	Individual and Group Interventions	3 cr.

Second Year

SAHE 731	Practicum in Student Affairs (to be taken twice for a total of six credits)	6 cr.
SAHE 733	Management of Organizational Behavior in Higher Education	3 cr.
SAHE 634	Assessment and Evaluation in Student Affairs	3 cr.
SAHE 737	The American College Student	3 cr.
SAHE 740	Contemporary Issues in Higher Education	3 cr.

II. Thesis or Electives (9 cr.)**A. Thesis Option**

SAHE 795	Thesis	3 or 6 cr.
GSR 615	Elements of Research	3 cr.
——-	Electives	0 or 3 cr.

or

B. Non-Thesis Option

——-	Electives	9 cr.
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Total 42 cr.

Education Specialist Program

School Psychology (Ed.S.)

The School Psychology (Ed.S.) degree program is designed to provide the student with specific clinical skills necessary to function as a school psychologist. The program includes a minimum of 36 credits beyond the M.Ed. in Educational Psychology Degree, culminating in Ed.S. degree in School Psychology. Courses focus on the multiple roles of the school psychologist, including counseling, assessment, intervention, consultation, exceptionalities, law/ethics, and the use of psychological skills in multicultural educational settings. The certification program includes a number of practica experiences and an internship that encompass a minimum of 1,200 hours, at least half of which must occur in a school setting. Students must maintain a grade point average of at least 3.25 and a grade of B or better in all department courses. Department courses are identified by their assigned prefix code of EDSP in the title. Continuous enrollment in a minimum of 9 credits per semester and 6 credits per summer session is required for the certification program unless waived by the Coordinator of the Certification Program and the School Psychology Committee.

Program Requirements

Fall

EDSP 745	Counseling for School Psychologists	3 cr.
EDSP 812	Cognitive Assessment	3 cr.
EDSP 763	Assessment of Personality and Behavior	3 cr.
EDSP 755	Practicum	2 cr.

Spring

EDSP 760	Group Counseling for School Psychologists	3 cr.
EDSP 814	Advanced Assessment for Low Incidence	3 cr.
EDSP 818	Instructional Consultation	3 cr.
EDSP 849	Advanced Practicum in School Psychology and Supervision	3 cr.
EDSP 755	Practicum	1 cr.

Summer

EDSP 717	Applied Educational Research Methods	3 cr.
EDSP 849	Advanced Practicum in School Psychology and Supervision	3 cr.

Internship (2 semesters, full-time)

Fall

EDSP 852	Internship	3 cr.
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Spring

EDSP 852	Internship	3 cr.
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Doctoral Programs

DEd in Administration and Leadership Studies

The doctoral program in Administration and Leadership Studies is designed to educate future school superintendents and college administrators. The 60-credit graduate program is cohort-based and offers a rich mixture of theory and application through specifically designed courses. The program focuses on leadership theory, research, team building, conflict resolution, implementing change, adult development, and case studies. The classes combine theory with actual projects that candidates are expected to implement in the workplace.

Admission Criteria

A master's degree is required to apply. Applicants for the Public School Cohort should be current administrators or hold certification as such, in order to have the "six years of satisfactory school experience, of which at least three must be in a supervisory or administrative capacity" needed to earn the Superintendent's Letter of Eligibility per PDE guidelines. Applicants are required to take part in an interview. Application materials include: two letters of recommendation, a goal statement, and official undergraduate and graduate transcripts.

Program Requirements

I. Core (18 cr.)

ALS 801	Leadership Theories	3 cr.
ALS 802	Leadership: A Case Study Approach	3 cr.
ALS 803	Leadership: Applied Practice	3 cr.
ALS 810	Advanced Topics in Human Development and Learning	3 cr.
ALS 850	School and Community	3 cr.
ALS 897	Research Synthesis	3 cr.

II. Research (18 cr.)

ALS 820	Doctoral Seminar in Research Methods	3 cr.
ALS 882	Research Instrument Design for Leadership Studies	3 cr.
ALS 883	Analysis of Qualitative Data in Leadership Studies	3 cr.
ALS 995	Dissertation	9 cr.

III. Internship (6 cr.)

ALS 898	Internship in Administration and Leadership Studies	6 cr.
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IV. Educational Administration (18 cr.)

ALS 805	Curriculum Evaluation	3 cr.
ALS 825	Critical Analysis of Issues in Education	3 cr.
ALS 830	Analysis of Effective Instruction	3 cr.
ELR 851	Conflict Resolution	3 cr.
¹ ALS 852	School Evaluation	3 cr.
¹ CURR 915	Writing for Professional Publication	3 cr.
² ALS 858	School Law and Negotiations	3 cr.
² ALS 860	School Finance	3 cr.

¹ Higher Education Cohort

² Public School Cohort

PhD in Administration and Leadership Studies, Nonprofit and Public Sectors

The PhD program in Administration and Leadership Studies (ALS), Nonprofit and Public Sectors, is designed to educate leaders in human services, health care, state and local government agencies, higher education, and other public and nonprofit organizations. This program is offered by the Department of Sociology in collaboration with the Department of Economics.

The ALS program's goals are to provide leadership development and enhanced administrative capacity through application of theory and research in the public and nonprofit services context. Student learning is constituted by the following objectives:

- Thorough knowledge of the scholarship and research on leadership and the ability to utilize this knowledge in an applied, professional context
- Knowledge and skills in nonprofit and public sector program planning and administration that reflect a social science perspective
- The capacity to locate and critique research and evaluation studies and to successfully design, conduct, and defend an original research study

As the majority of students are midcareer professionals with full-time positions, required courses are offered evenings and/or Saturdays, two courses per term. Courses are offered in fall, spring, and a seven-week summer session.

Admission Criteria

Students are admitted in cohorts. The admissions process involves a review of an assortment of materials, including an application for admission form, transcripts, GRE or GMAT test scores, three letters of recommendation from academic or professional references, a work experience statement (either a vitae or résumé), a goal statement in which the applicant explains why she/he wishes to be admitted to the program, and a major writing sample such as a master's thesis, course paper, policy document, or program report. A personal interview may be required at the option of the Admissions Committee. A master's degree is required. Prospective students should be aware that this is a social science program, with most courses taught by professors of Sociology and Economics; therefore, some background in the social sciences is helpful but not required.

Program Requirements

Each student admitted to a doctoral program receives doctoral candidacy after completing at least 18 graduate credits beyond the master's degree, with a GPA of 3.0. To be eligible for graduation, students must complete the 61 credit hours specified in the curriculum, successfully pass the comprehensive examination, and successfully defend a dissertation proposal and a completed dissertation. Program curriculum requirements are as follows:

I. Core (28 cr.)

LDRS 800	Pro-seminar	1 cr.
LDRS 801	Leadership Theories	3 cr.
LDRS 802	Leadership Applications	3 cr.
LDRS 810	Nonprofit Management	3 cr.
LDRS 811	Administration in the Public Sector	3 cr.
SOC 802	Classical Social and Organizational Theories	3 cr.
SOC 803	Contemporary Social and Organization Theories	3 cr.
SOC 804	Social Policy	3 cr.
ECON 820	Managerial Economics for Decision Making and Leadership	3 cr.
LDRS 900	Dissertation Seminar	3 cr.

II. Research (24 cr.)

SOC 862	Analysis of Social Data	3 cr.
SOC 863	Quantitative Research Methods I	3 cr.
SOC 864	Quantitative Research Methods II	3 cr.
SOC 865	Qualitative Research Methods	3 cr.
LDRS 861	Program Evaluation	3 cr.
LDRS 995	Dissertation	9 cr.

III. Electives (9 cr.)

Nine credits from among any relevant graduate-level courses with permission of the doctoral coordinator.

For detailed information about the program, you may contact the program coordinator at 724-357-2956 (Indiana), 717-720-4064 (Harrisburg), or e-mail to ALS-PHD@iup.edu. The program's website may be viewed at www.iup.edu/alsphd.

PhD in Business

The Eberly College of Business and Information Technology offers the PhD in Business program in a weekend, cohort-based format. The program would be offered on a part-time basis (6 credits/ semester), will include two years of coursework, a comprehensive examination, and a dissertation. Since 2001, the Eberly College is accredited by the Association to Advance Collegiate Schools of Business International (AACSB), the premier accrediting body for business schools worldwide.

Admissions Criteria

It is expected that the applicants to the PhD in Business program would have completed a Masters Degree with a minimum of 30 credits of business or related field (bachelors or masters level).

In addition, the following criteria will be reviewed:

- Depth of graduate coursework
- GMAT/GRE Scores (GMAT Scores preferred; Previous GRE scores will be accepted)
- Resume

- Three Letters of Recommendation
- Statement of Goals
- All Official College Transcripts
- Evidence of Experience within Functional Area
- Examples of Professional Writing
- Candidate Interviews

Program Requirements

The PhD in Business requires the successful completion of a minimum of 48 hours of graduate credits that includes: a) coursework; b) doctoral seminar; c) comprehensive exam; and d) dissertation.

I. Required Courses (30 cr.)

MKTG/ISDS 811	Theory Building and Research Methods	3 cr.
ISDS/ECON 812	Quantitative Research Methods I	3 cr.
ECON/ISDS 813	Quantitative Research Methods II	3 cr.
MKTG 850	Marketing Theory	3 cr.
FIN 870	Financial Institutions and Markets	3 cr.
MGMT 820	Organizational Behavior	3 cr.
IFMG 830	MIS Theory and Decision Making	3 cr.
ACCT 840	Seminar in Managerial Accounting	3 cr.
MGMT/MKTG 860	Global Competitiveness and Sustainability	3 cr.
MGMT 880	Global Supply Chain Theory and Practice	3 cr.

II. Doctoral Seminar (6 cr.)

The Doctoral Seminar introduces PhD students to basic and applied research in a specific area of business—management, marketing, finance, supply chain, human resources, information systems, accounting, international business and entrepreneurship.

III. Comprehensive Examination

Upon successful completion of the coursework and the Doctoral Seminar, the student will be administered a comprehensive examination that will include topical coverage from all the core courses, the Doctoral Seminar and the area in which the student intend to conduct their dissertation research. The result of the exam is pass or fail. Comprehensive exams will be offered in August of each year. Students who do not pass the comprehensive examination will be given an option to take the examination again in October or in the following year August. Maximum attempts for comprehensive examinations is limited to two.

IV. Doctoral Dissertation (12 cr.)

Dissertation is the culminating scholarly activity requiring independent original research, literature review, data collection, analysis, and written and oral dissemination of findings. Students are required to defend a proposal in front their committee after the literature review and proposed methodology are outlined. Once the dissertation is fully compiled, the oral dissertation defense is completed before the dissertation committee of the student. Upon successful completion of the oral defense and the written dissertation, the student becomes eligible to secure a PhD degree.

PsyD in Clinical Psychology

The Psychology Department offers a Doctor of Psychology degree in Clinical Psychology (PsyD) that places emphasis upon professional applications of psychology based on a solid grounding in the scientific knowledge base of psychology.

The program is accredited by the American Psychological Association's Commission on Accreditation. Questions related to the program's accreditation status should be directed to the Commission on Accreditation:

Office of Program Consultation and Accreditation

American Psychological Association
750 1st Street, NE, Washington, D.C. 20002
Phone: 202-336-5979
E-mail: apaaccred@apa.org

The program is designed to meet the academic requirements of licensure and to provide the student with background to immediately assume responsibilities in appropriate professional settings.

Admission Criteria

The following criteria are used in the evaluation of application materials: (a) overall grade point average and grades in psychology courses (3.0 minimum in both areas); (b) scores on the Graduate Record Examination (GRE) General Test (minimum combined score of 290 for Verbal Reasoning + Quantitative Reasoning); (c) training in research methodology; (d) prior clinical experience in practicum or employment; (e) the applicant's statement of goals; (f) three letters of recommendation; and (g) results of a personal interview. Applicants who do not have undergraduate degrees in psychology or limited coursework in psychology are strongly encouraged to take the GRE subject test in psychology to demonstrate knowledge of the content areas in the field.

Breadth of undergraduate training is preferable to narrow specialization. Weaknesses in one area may be offset by strengths in another area, although the Admissions Committee gives preference to applicants with some demonstrated strengths in all areas. Students may be required to make up deficiencies.

The deadline for receipt of all application materials is December 15. The Admissions Committee will then select a pool of qualified applicants who will be invited to the campus for personal interviews. Announcements of final admissions decisions will be made around April 1.

Philosophy

The PsyD program follows a practitioner or applied model of training of clinical psychologists. Emphasis is placed on professional applications of psychology to a wide variety of human problems. Students receive extensive supervision in the development of skills in interpersonal relations, psychological assessment, psychotherapy, community outreach, and program evaluation and a solid grounding in the scientific knowledge base of psychology.

Program Requirements

The PsyD program is typically completed in four calendar years of full-time study plus an additional year of full-time internship. The curriculum requires a minimum of 102-104 semester hours of acceptable graduate credit. Each student must complete requirements for (a) core course work; (b) special proficiency/elective course work requirements; (c) practicum, internship, and professional issues; (d) doctoral project; (e) comprehensive academic and professional examinations; and (f) master's and doctoral candidacy. In addition, a course in Historical Trends and Systems in Psychology is required for graduation.

I. Core Course Work (57 cr.)

The core courses are required of all students. These courses cover several areas of psychology and provide the scientific basis for professional practice.

1. Methods of Behavior Change

PSYC 830	Methods of Intervention I	3 cr.
PSYC 831	Methods of Intervention II	3 cr.
PSYC 833	Clinical Group Techniques	3 cr.
PSYC 834	Family Therapy	3 cr.

2. Methods of Assessment and Evaluation

PSYC 841	Psychological Assessment I	3 cr.
PSYC 842	Psychological Assessment II	3 cr.
PSYC 843	Psychological Assessment III	3 cr.

3. Research and Methodology

PSYC 801	Research Methods in Psychology I	3 cr.
PSYC 802	Clinical Research Methods	3 cr.
PSYC 803	Evaluation Research	3 cr.

4. Individual Differences

PSYC 835	Advanced Psychopathology	3 cr.
PSYC 836	Personality Theory and Systems of Psychotherapy	3 cr.
PSYC 853	Issues in Developmental Psychology	3 cr.

5. Physiological Bases of Behavior:

PSYC 856	Drugs and Behavior	3 cr.
PSYC 857	Clinical Neuropsychology	3 cr.

6. Cognitive Bases of Behavior:

PSYC 852	Models of Learning	3 cr.
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7. Social Bases of Behavior:

PSYC 855	Racial, Cultural, and Gender Issues in Psychology	3 cr.
PSYC 858	Advanced Social Psychology	3 cr.

8. History of Psychology:

PSYC 810	Historical Trends in Psychology	3 cr.
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II. Elective Course Work/Special Proficiency: Three Courses

Students select three advanced courses in consultation with an advisor. Special elective packages include Child/Family and Behavioral Medicine.

III. Practicum, Internship, and Professional Issues (27 cr.)

PSYC 920	Professional Issues	3 cr.
PSYC 993	Advanced Psychological Practicum	21 cr.
PSYC 994	Internship	3 cr.

Students will typically register for practicum experience throughout their program with sampling from diverse settings. During the final year, a full-time professional internship emphasizing depth and long-term involvement is required.

IV. Doctoral Project (9 cr.)

PSYC 995	Doctoral Project (Dissertation)	9 cr.
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V. Comprehensive Academic and Professional Examinations (0 cr.)

Each year, an evaluation of clinical and professional competence will be made. This evaluation data will be shared with the student as feedback, and a joint effort will be made to remediate any deficiencies.

Students must also pass a preliminary examination and a research proficiency evaluation covering basic knowledge appropriate for a professional psychologist. This examination will cover material related to all of the core course work areas.

The Clinical Proficiency Evaluation is completed during the final year on campus. Students present assessment and therapy work samples to a committee of faculty members.

Satisfactory performance on both the preliminary examination and the professional evaluations must be achieved before candidacy for the doctorate will be recommended. Serious deficiencies may result in recommendations for remedial work, reexamination, delay of candidacy, or termination from the program.

VI. Master's and Doctoral Candidacy

Students will routinely obtain the master's degree en route to the doctorate. Requirements for candidacy for the MA degree include the successful completion of 24 credits of approved graduate course work with a grade point average of 3.0 and the recommendation of the Clinical Training Committee based on satisfactory academic and professional evaluations. The 54 credits for the MA must include nine hours of practicum and 45 hours of the core course work of the PsyD degree.

The candidacy for the PsyD will be awarded following the completion of all MA requirements plus a minimum of an additional nine credits, successful performance on the preliminary

examination and research proficiency evaluation, and satisfactory annual academic and professional evaluations. A grade point average of 3.0 is required for candidacy.

VII. Transfer of Graduate Credit

Applicants who have completed course work at other institutions may request transfer of credit. A maximum of 36 semester hours of credit may be approved. A portion, but not all, of the practicum requirements may be transferred for equivalent supervised experience.

VIII. Progression through the Program

All students complete a Plan of Study, which will include a detailed semester-by-semester outline of proposed course work and completion dates for exams, doctoral project, and internship. An average of 15 semester hours must be completed each year, and all requirements must be completed within seven years. No classes are offered online.

Other Policies

The Psychology Department has established guidelines for the registration and completion of the doctoral project, academic good standing, full-time student status, an appeals process, and other academic matters. These guidelines are explained in the Psychology Graduate Student Handbook.

PhD in Communications Media and Instructional Technology

The PhD in Communications Media and Instructional Technology (CMIT) is designed to develop scholars who are prepared to conduct advanced research and are experts in the following areas: communications theory; the impact of media on culture; and the design, development, implementation, and evaluation of training. Graduates will synthesize knowledge from domains within the communication field and related disciplines as they assume leadership roles in diverse professional, business, and military environments.

The 60-credit program, designed for individuals interested in pursuing a career in academia, business, or the military with a research focus on Communications Media and Instructional Technology, provides students with the culture and theory courses, research courses, and production of media courses with an emphasis on current and emerging technologies.

Upon completion of the PhD in Communications Media and Instructional Technology program, the graduate is prepared to:

- conduct research that enables organizations to effectively use communications and media in meeting goals
- apply research, an understanding of culture, and production skills to the development of new media
- interpret cultural forces upon communications and media
- provide leadership to positively impact culture with communications and media
- design, produce, and utilize media within a variety of cultural and professional contexts
- synthesize existing media and emerging technologies
- develop new media

Student Qualifications, Support, and Advisement

Students seeking admission to the PhD in Communications Media and Instructional Technology must satisfy the minimum School of Graduate Studies and Research requirements and have a master's degree. International students are required to comply with the admission criteria as outlined in the graduate catalog.

Applicants to the PhD program in Communications Media and Instructional Technology fall under one of two categories.

Category I.

By default, most applicants will fall under this category, including applicants who will have completed the Production Track of IUP's MS in Strategic Communication prior to enrollment in the CMIT PhD program. Category II criteria to determine their eligibility

Typically, applicants must submit the following for review by the doctoral program committee:

- Recent GRE Scores (including analytical writing) or MAT scores that meet program minimum requirements
- Official higher education transcripts
- Current Curriculum Vitae
- Writing sample
- Two letters of recommendation
- Personal interview

Category II.

Admission to the CMIT program under this category is limited to individuals who have earned a master's degree five year or more prior to the date of application to the CMIT program AND have five or more years of full-time employment at an accredited U.S. institution of higher education or with a U.S.-based industry/organization directly related to the CMIT curriculum.

Category II applicants must submit the following for review by the doctoral program committee:

- Official higher education transcripts (undergraduate and graduate)
- Current curriculum vitae or resume
- Writing sample: a sample that reflects your ability to do academic work and research such as a published work, a paper presented at a professional conference, a major paper for a graduate-level course, or other academic writing
- Two letters of recommendation assessing your ability to work at the doctoral level
- Professional goal statement addressing why you are interested in pursuing doctoral studies in this area, your long-term professional goals, and preparations you are undertaking in anticipation of acceptance into the program
- Portfolio

Letters of recommendation must directly address the applicant's capability to write and produce research at the doctoral level. Applicants seeking admission under Category II will be required to provide a written and oral response to a research question or problem. Applicants in Category II

are also required to submit a portfolio of work including such items as scholarly publications and presentations or production samples relevant to the CMIT coursework. Additionally, Category II applicants are required to meet the minimum GPA requirements for both bachelor's and master's degrees as established by the department.

Category III.

Admission to the CMIT program under Category III is limited to applicants who will have completed the Research Track of IUP's MS in Strategic Communication prior to enrollment in the CMIT PhD program.

Category III applicants must submit the following for review by the doctoral program committee:

- Official higher education transcripts (undergraduate and graduate)
- Current curriculum vitae or resume
- Writing sample: a sample that reflects your ability to do academic work and research such as a published work, a paper presented at a professional conference, a major paper for a graduate-level course, or other academic writing
- Two letters of recommendation assessing your ability to work at the doctoral level
- Professional goal statement addressing why you are interested in pursuing doctoral studies in this area, your long-term professional goals, and preparations you are undertaking in anticipation of acceptance into the program

Upon review of completed applications from any of the above four categories, the CMIT faculty admissions committee may invite the applicant to campus for an interview. The committee determines whether to accept, waitlist, or deny each applicant based on the strength of application materials and admissions interview.

Curriculum Overview

I. Research Courses (12 credits)

COMM 800	Communication Research Statistics (or equivalent)	3 cr.
COMM 825	Quantitative Methods in Communications Research	3 cr.
COMM 828	Qualitative Methods in Communications Research	3 cr.
COMM 910	Advanced Doctoral Research in Communications	3 cr.

II. Theory and Culture Core Courses (9 credits)

COMM 801	Ideas that Shape Media	3 cr.
COMM 815	Teaching Communications Media	3 cr.
COMM 857	Doctoral Seminar in Communications Culture and Technology	3 cr.

III. Production Core Courses (12 cr.)

COMM 830	Media Preproduction	3 cr.
COMM 832	Media Production	6 cr.
COMM 846	Instructional Media Solutions	3 cr.

IV. Elective Courses (15 cr.)

COMM 812	Media Ethics	3 cr.
COMM 814	Crisis Communication	3 cr.
COMM 818	Media Criticism	3 cr.
COMM 822	Children and Media	3 cr.
COMM 853	Corporate Communications	3 cr.
COMM 876	Online Media	3 cr.
COMM 881	Special Topics	3 cr.
COMM 882	Simulations and Games	3 cr.
COMM 900	Culture of Cyberspace	3 cr.

V. Dissertation (12 cr.)

COMM 995	Dissertation	12 cr.
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A dissertation is required of all doctoral candidates and must demonstrate the candidate's mastery of his/her research and produce results of an original investigation in the field of communications media and instructional technology. The goal should be to make an original scholarly contribution to the field.

Total 60 Credits beyond a master's or master's equivalency

Degree Candidacy

Each student admitted to the doctoral program is eligible for doctoral degree candidacy after successful completion of twelve graduate credits in the doctoral program with an overall GPA of 3.0 or higher. To obtain candidacy, the student must successfully complete a written candidacy examination.

Comprehensive Examination

The comprehensive examination will be used to determine the student's progress in the field of Communications Media and Instructional Technology and the student's likelihood of success in the research-dissertation phase.

PhD in Counselor Education and Supervision

The PhD program in Counselor Education and Supervision is designed to build on the 60-credit CACREP master's degree in counseling and can be completed in 2–3 years of study. This PhD program is designed to meet CACREP 2016 standards with coursework in the fall, spring, and summer semesters. The Ph.D. curriculum requires a minimum of 48 semester hours of acceptable graduate credit beyond the 60 credit hour counseling master's degree. Each student must complete the following 1) all required and elective course work 2) comprehensive examinations 3) dissertation proposal and its defense 4) dissertation and its defense.

Admissions Criteria

Students seeking admission to the program must meet the following criteria:

1A. Have earned a 48 or 60 credit hour master's degree in counseling from a CACREP accredited institution.

OR

1B. Have earned a 48 or 60 credit hour master's degree in counseling NOT from a CACREP accredited program.

Students whose master's degree is NOT from a CACREP accredited program, but hold a 48- or 60-credit counseling degree must complete the additional coursework necessary to meet CACREP 2016. A transcript audit will be completed to identify any additional coursework. No applicant will be admitted who needs more than 12 credit hours including practicum.

2. Have a minimum graduate grade point average of 3.5.

The doctoral coordinator, after consulting with the department screening committee, will submit a recommendation regarding applicants to the Graduate School and Research. The following criteria will be reviewed:

- All official college/university transcripts
- Two letters of academic or professional recommendation
- Goal Statement: A summary of relevant educational/work experience; reasons for wanting to earn a PhD in CES (career goals); reasons interested in IUPs PhD program (no more than 2-3 pages)
- Resume/Vita
- GRE
- Example of written work

Transfer Credit

Applicants who have completed course work at other institutions may request transfer of credit. A maximum of 6 credit hours may be approved.

Program Requirements

I. CACREP Core (15 cr.):

COUN 860	Counselor Education and Supervision Professional Identity	3 cr.
COUN 870	Advanced Counseling	3 cr.
COUN 880	Preparation for the Professoriate: Leadership and Advocacy in the Counseling Profession	3 cr.
COUN 900	Preparation for the Professoriate: Teaching in Counseling	3 cr.
COUN 910	Counseling Supervision and Consultation	3 cr.

II. Research and Scholarship (12 cr.):

COUN 890	Quantitative Research and Statistical Analysis in Counselor Education	3 cr.
COUN 920	Qualitative Methodology in Counselor Education	3 cr.
COUN 940	Preparation for the Professoriate: Conducting Research in Counselor Education and Supervision	3 cr.
COUN 950	Research Specialty: Advanced Research in Counselor Education	3 cr.

III. Clinical – Practicum & Internship (9 cr.):

COUN 930	Doctoral Practicum in Counseling	3 cr.
COUN 960	Doctoral Field Experience in Counselor Education	6 cr.

IV. Dissertation – Dissertation (12 cr.):

COUN 995	Dissertation in Counselor Education	12 cr.
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Total Credits: 48 cr.

PhD in Criminology

IUP graduate programs in Criminology are designed to prepare students for careers in academia and for upper-level administrative positions in various fields of justice.

Admission Criteria

It is expected that students entering the PhD program in Criminology will have completed a master's degree in either Criminology or a closely related discipline. However, in exceptional cases, a highly qualified applicant may enter the doctoral track with a baccalaureate degree. Such students would obtain the MA degree in route to the PhD

Applicants must meet all School of Graduate Studies and Research admission requirements. Additionally, the doctoral coordinator, after consulting with the department PhD committee, will submit a recommendation regarding applicants to the School of Graduate Studies and Research. The following criteria are reviewed:

1. All official college transcripts
2. Three letters of recommendation
3. Statement of goals
4. Example of written work (thesis, articles, reports, etc.)
5. GRE scores (A combined score of at least 290 on the verbal and quantitative sections is expected. Some flexibility may be granted at the discretion of the screening committee.)
6. Skill requirement (foreign language, computer or statistical ability, or other skills approved by the PhD committee or the department's graduate curriculum committee)
7. Personal interview (may be requested by department PhD committee or by applicant)

Program Requirements

The PhD program in Criminology requires a minimum of 54 semester hours of acceptable graduate credit. Each student must complete requirements for (a) course work; (b) area of specialization requirements; (c) qualifying examinations; (d) skill requirement; and (e) dissertation.

A. Required Course Work

I. Core Courses (21 cr.):

CRIM 810	Advanced Theoretical Criminology	3 cr.
CRIM 817	Advanced Qualitative Methods	3 cr.
CRIM 818	Quantitative Strategies for Analysis in Criminology	3 cr.
CRIM 820	Advanced Quantitative Methods	3 cr.
CRIM 830	Ethical and Philosophical Issues in Criminology	3 cr.

CRIM 840	Advanced Criminal Justice Policy	3 cr.
CRIM 851	Doctoral Colloquium in Criminology	3 cr.

II. Advanced Applied Research (9 cr.):

CRIM 901	Advanced Applied Research I	3 cr.
CRIM 902	Advanced Applied Research II	3 cr.
CRIM 903	Advanced Applied Research III	3 cr.

III. Criminology Electives: 6 credits minimum

IV. Other Electives: 6 credits from Criminology or related disciplines

B. Qualifying Examination

Upon completion of 18 semester hours, a student must take qualifying examinations in three core subject areas. After successful completion, a student may proceed toward fulfillment of remaining degree requirements.

C. Comprehensive Area of Specialization Competence Review: Areas of Concentration

Each student must decide upon one subspecialty within Criminology. Upon consultation with the student, the student's advisory committee, and the doctoral coordinator, a proficiency review will be conducted.

D. Skill Requirement (0-6 credits)

This requirement may be fulfilled by demonstrating knowledge in one of the following areas:

- Foreign language
- Computer
- Advanced statistics
- Advanced research methods
- Other appropriate areas as approved by the doctoral coordinator

Further details regarding any of these skill requirements can be obtained from the doctoral coordinator.

E. Dissertation

In accordance with university guidelines, successful completion of a doctoral dissertation is required (12 credits).

Residency

The following options are available to doctoral students for satisfying residency requirements:

1. Completion of a minimum of nine graduate credits at IUP in each of at least two consecutive semesters
2. Completion of a minimum of nine graduate credits at IUP for at least one semester immediately preceding or following a summer of nine semester hours of study
3. Completion at IUP of at least nine graduate credits in each of two consecutive summers plus six graduate credits during the intervening academic year

Part-Time Study

This program may admit each year some students whose intention is to complete the program on a part-time basis. Course offerings can be expected to fluctuate, especially in the expansion of new course offerings. A complete and updated description of any changes can be obtained from the Department of Criminology and Criminal Justice.

DEd in Curriculum and Instruction

The Doctor of Education in Curriculum and Instruction is a graduate program intended for teacher/ scholars who have demonstrated distinguished achievement as practitioners or administrators in the field of education. The DEd is a professional degree conferred upon candidates who have demonstrated the ability to function effectively in the role of teacher-educator in college and university settings and who have a commitment to the professional development of pre-service and in-service teachers.

Successful completion of the doctorate in curriculum and instruction signifies that program graduates function effectively as teacher/scholars who: 1) understand and apply educational theory, 2) demonstrate competence in curriculum evaluation, 3) fulfill the role of teacher-educator committed to working with diverse populations, and 4) conduct independent research that makes a significant contribution to the field of education.

The program leading to a Doctor of Education in Curriculum and Instruction is an applied sequence of courses, experiences, and research for individuals who are seeking to begin careers in higher education or to become curriculum experts and professional development specialists in public, private, and independent schools.

The Doctoral Program in Curriculum and Instruction is designed to prepare teacher/scholars who work with pre-service and in-service educators in university and school settings. In fulfilling their role as teacher-educators, those who earn the DEd in Curriculum and Instruction have mastered four areas: educational theory, teacher education, curriculum evaluation, and research methods.

The program intends to prepare doctoral graduates who will:

- Fulfill the teacher-educator's role in ways that reflect the highest standards for academic rigor, intellectual inquiry, and professional integrity
- Study curriculum as a discipline including the design, implementation, and evaluation of programs in education
- Analyze critical issues in curriculum and instruction, both historical and contemporary, as they relate to a broad range of disciplinary specialties in the field
- Use technology for developing outstanding college-level courses and professional development programs for preservice and in-service educators
- Demonstrate knowledge of adult development, characteristics of adult learners, and appropriate ways of supporting educators' professional growth
- Apply knowledge of learners and curriculum to offer exemplary college-level instruction and supervision to practitioners in the field of education
- Master the research skills of the teacher/scholar in education as demonstrated by professional presentations, scholarly writing, and the successful completion of independent

dissertation research

- Contribute to the commonwealth and other educational settings by working effectively and ethically with diverse populations of educators, children, families, and communities

Admission Criteria

In addition to meeting minimum graduate admission criteria, applications are also required to:

1. Show a cumulative quality-point average on a graduate-level transcript of 3.5 on a 4.0 scale.
2. Submit a five-minute, recorded, research-based presentation on a curriculum and instruction topic and a list of the works cited.
3. Complete an online writing task that is individually scheduled and evaluated by members of the Doctoral Screening Committee.

Program Requirements

A total of 60 semester-hour credits beyond the master's degree are required in the Doctoral Program in Curriculum and Instruction. The credits are allocated as follows:

I. Core (27 cr.)

CURR 905	Implementation and Evaluation of Curriculum	3 cr.
CURR 910	Advanced Topics in Human Development and Learning	3 cr.
CURR 925	Critical Analysis of Issues in Education	3 cr.
CURR 930	Effective Teaching and Supervision	3 cr.
CURR 935	Democratizing Education: Diversity, Citizenship, and Social Justice	3 cr.
CURR 940	Emerging Technologies in Education	3 cr.
CURR 945	Literacy: Theory, Research, and Practice	3 cr.
CURR 951	Innovations in Curriculum and Instruction	3 cr.
CURR 955	Research Proposals and Peer Review Processes	3 cr.

II. Research Methods and Scholarly Writing (18 cr.)

CURR 915	Writing for Professional Publication	3 cr.
CURR 918	Qualitative Research Design in Education	3 cr.
CURR 920	Quantitative Research Methods in Education	3 cr.
CURR 960	Comprehensive Evaluation of Educational Programs	3 cr.
CURR 982	Research Instrument Design	3 cr.
CURR 983	Qualitative and Mixed Methods Research in Education	3 cr.

III. Advanced, Graduate Level Electives (6 cr.)

CURR 798	Supervised Doctoral Internship (6 Credits Required for the Supervisor of Curriculum and Instruction Certificate)	
Other Courses	As Approved	

IV. Dissertation (9 cr.)

CURR 995	Dissertation	9 cr.
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V. Professional Portfolio

The professional portfolio will be developed during the course of the doctoral program. See the Doctoral Program in Curriculum and Instruction Handbook for detailed guidelines.

PhD in English, Composition and Applied Linguistics

The program is designed to meet the needs of English and TESOL (Teaching English to Speakers of Other Languages) instructors at two-year and four-year colleges and universities. The core courses provide a foundation for students to specialize in composition or TESOL or both. This foundation is flexible enough to meet students' individual needs and those of the academic marketplace.

The core curriculum connects theory with practice and is designed to increase the professional qualifications and teaching effectiveness of instructors in teaching positions. The Composition and TESOL Program began in 1975 and was revised in 1986 and again in 2000.

The Composition and TESOL Program recognizes the changing structure of education and the interdisciplinary nature of research into the nature and transmission of literacy. It provides central courses in research methods, technology and literacy, and language theory and offers options for a 9-credit specialization in Composition or TESOL. Doctoral students may begin the program in the summer or fall and must start with ENGL 800 and ENGL 808. Students have 15 elective hours in the program, with courses offered in rhetoric, reading theory, and literacy theory. In addition, students may take courses from other programs, or they may opt to take the second specialization in the CT Program.

The program emphasizes the flexible yet intensive preparation of instructors of literacy. To achieve this flexibility, the program permits variation in the fields of concentration. All students study a common body of knowledge in central courses and focus their research on the uses of interdisciplinary knowledge for the transmission of literacy in the teaching of English. A unique feature is that students can select an academic year or a summers-only program option.

Admissions Criteria

To apply, students must submit the following to the IUP Admissions Office:

- Official transcripts from previous schools attended. A grade-point average of 3.5 in the master's degree is considered competitive.
- TOEFL (Test of English as a Foreign Language) or IELTS (International English Language Testing System) scores (international applicants only; please see more information below)
- Three letters of recommendation are preferred; two are required
- A goal statement that describes the applicant's research interests and goals for doctoral studies (about three pages, double-spaced)
- Vita or résumé
- Application Deadlines: Complete application by November 1 for Summer program and February 1 for Fall program
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Program Requirements

I. Composition and Applied Linguistics Discipline Courses (9 cr.)

ENGL 825	Second Language Literacy	3 cr.
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ENGL 830	Research and Practice in the Teaching of College Composition	3 cr.
ENGL 833	Theories of Composition	3 cr.

II. Two Advanced Research Seminars (6 cr.)

ENGL 846	Research Seminar *	3 cr.
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*May also be taken for repeat credit as an elective

III. Research Sequence (12 cr.)

ENGL 800	Research in Composition and Applied Linguistics	3 cr.
ENGL 820	Quantitative Research Methods in Composition and Applied Linguistics	3 cr.
ENGL 815	Qualitative Research Methods in Composition and Applied Linguistics	3 cr.
ENGL 835	Research Design and the Craft of Writing	3 cr.

Electives (9 cr.)

ENGL 805	Language and Social Context	3 cr.
ENGL 808	Technology and Literacy	3 cr.
ENGL 823	Second Language Teaching	3 cr.
ENGL 824	Second Language Acquisition	3 cr.
ENGL 803	Language and Cognition	3 cr.
ENGL 831	Rhetorical Traditions	3 cr.
ENGL 834	Linguistics & the English Teacher	3 cr.
ENGL 842	Cross-Cultural Communication	3 cr.
ENGL 844	Reading Theory & the College English Teacher	3 cr.
ENGL 845	Theories of Literacy	3 cr.
ENGL 847	Identity, Power, and the Multilingual Writer	3 cr.
ENGL 848	Topics in Composition and Applied Linguistics	3 cr.
ENGL 854	World Englishes in Composition and Applied Linguistics	3 cr.
ENGL 867	Research on Writing Centers and Writing Program Administration	3 cr.

Courses in other programs such as Literature or Education (as approved by C&AL Director)

Total Course Hours: 36 cr.

Dissertation: 12 cr.

PhD in English, Literature and Criticism

The Literature and Criticism Program's Doctor of Philosophy in English is designed for present or future teachers at the college or university level. It features both a regular academic-year program and a very active summer program for established teachers who wish to complete their degrees in the summers only. The program develops students' abilities to examine literature critically, to teach literature effectively, and to make professional contributions in the field.

Courses emphasize the role of theory in understanding literature, and students are asked to apply theory to their teaching and research in the concluding Advanced Seminars. The Traditional Literature courses reinforce the student's understanding of historical, cultural, and intellectual

contexts. The Special Literatures section mirrors the acceptance of new works in the canon. The focus on scholarly skills in the seminars and the mentoring relationships with professors assure that students will acquire a professional competence in literature and critical theory.

Early in the program, each doctoral student is assigned a faculty mentor to provide guidance and advice on becoming professionally active. The main components of the program are course work, a candidacy examination (taken approximately midway in the course work), proof of language proficiency, the completion of a research skills requirement, comprehensive examinations, and the dissertation.

Admission Criteria

The Literature Program has rolling admissions throughout the year. Please note that applications are not encouraged from students who are not already employed in teaching English or who do not have prior teaching experience. Because of the limited opportunity for gaining teaching experience on campus, student classroom teaching experience as part of the degree program cannot be guaranteed.

Program Requirements

A minimum of 30 hours of course work (excluding the dissertation) is required beyond the MA

Two core courses (6 cr.)

ENGL 955	The History and Theory of Criticism	3 cr.
ENGL 956	Literary Theory for the Teacher and Scholarly Writer	3 cr.

Six courses may be elected from all 800-level courses in literature (18 cr.)

(At least two courses must be in Traditional Literatures)

ENGL 861	Topics in American Literature Before 1870	3 cr.
ENGL 862	Topics in American Literature Since 1870	3 cr.
ENGL 863	Topics in British Literature Before 1660	3 cr.
ENGL 864	Topics in British Literature Since 1660	3 cr.
ENGL 865	Topics in Literature as Genre	3 cr.
ENGL 866	Topics in Comparative Literature	3 cr.

(At least one course must be in Special Literatures: ENGL 871-873)

ENGL 871	Topics in Postmodern Literature	3 cr.
ENGL 872	Topics in Women's Literature	3 cr.
ENGL 873	Topics in American or British Minority Literature	3 cr.

Two Advanced Seminars (6 cr.)

ENGL 983	Seminar: Literary Theory Applied to Major American Author or Theme	3 cr.
ENGL 984	Seminar: Literary Theory Applied to British Author or Theme	3 cr.
ENGL 985	Seminar: Comparative Literary Theory Applied to Traditional and Special Literature	3 cr.

Total 30 cr.

The program director may permit students with particular programmatic needs to take up to six

of the 30 hours in a closely related field such as rhetoric and linguistics, history, or philosophy.

After completing 12 to 18 hours of course work, the student must take a generalist literary essay examination for admission to candidacy and permission to take further elective courses and seminars. Candidacy depends upon satisfactory completion of this exam and the fulfillment of a 3.5 grade point average.

Following the completion of the 30 hours of course work, students take written comprehensive examinations in three areas (literary theory and practice as applied to a general list of authors and texts, a broadly defined area of literature, and a narrowly focused field of study), together with an oral defense of the written exams. In addition, the program requires reading ability in a foreign language and the completion of a research skills requirement (either proficiency in a second foreign language or an additional six hours of graduate course work in a field related to a student's research needs). The final program requirement is the successful defense of a dissertation, including registration for twelve dissertation credits. Further and more detailed information about the program is available in the Program Handbook, which may be obtained from the Office of the Director, Graduate Studies in Literature and Criticism, 506 Humanities and Social Sciences Building, IUP, Indiana, PA 15705-1015. Phone: 724-357-2263; fax: 724-357-2265.

PhD in Nursing

The PhD in Nursing is designed to develop nurse-scholars who are experts in nursing pedagogy and are prepared to conduct advanced research. Graduates will synthesize knowledge from nursing and related disciplines as they assume leadership roles in diverse educational environments.

The 60-credit program, designed for nurses interested in pursuing a career in academia with a research focus on nursing education, provides students with nursing core courses, research courses, and supportive courses. Upon completion of the PhD in Nursing program, the graduate is prepared to:

- Assume leadership in diverse educational environments.
- Synthesize knowledge from nursing and related disciplines to facilitate learning and foster development of students and educators.
- Conduct advanced nursing research that contributes to the generation of knowledge within nursing education.
- Model the role of nurse-scholars and effective nurse-educator.

Admission Criteria

Students seeking admission to the PhD program in Nursing must satisfy the minimum School of Graduate Studies and Research requirements and have a master's degree in nursing or a related field. International students are required to comply with the admission criteria as outlined in the graduate catalog.

All applicants must also submit the following for review by the doctoral program committee:

- Official Higher Education Transcripts
- Nursing License

- Current Curriculum Vitae
- Writing Sample
- Two Letters of Recommendation
- Personal Interview

Refer to the nursing doctoral student application packet for additional information about the admission process. Additional information about the program can be found at www.iup.edu/rn-alliedhealth

Program Requirements

The PhD program in Nursing requires a minimum of 60 semester hours of graduate credits. Each student must also satisfactorily complete the candidacy examination, the comprehensive examination, and the dissertation.

Required course work:

I. Nursing Core Courses (21 semester hours)

NURS 820	Seminar in Nursing Theory	3 cr.
NURS 860	Faculty Development in Nursing Education	3 cr.
NURS 861	Pedagogical Practices in Nursing Education	3 cr.
NURS 862	Curriculum Evaluation in Nursing	3 cr.
NURS 863	Evaluation in Nursing Education	3 cr.
NURS 864	Technology in Nursing Education	3 cr.
NURS 993	Nursing Professoriate Practicum	3 cr.
OR		
NURS 801	Colloquium in Nursing	3 cr.

II. Research Core (15 semester hours)

GSR 517	Statistical Methods II	3 cr.
NURS 951	Quantitative Nursing Research	3 cr.
NURS 952	Qualitative Nursing Research	3 cr.
NURS 953	Research Seminar I	3 cr.
NURS 954	Research Seminar II	3 cr.

III. Support Courses (12 semester hours)

NURS 865	Student Issues in Nursing Education ^{1,3}	3 cr.
NURS 802	Leadership in Nursing: A Case Study Approach ²	3 cr.
————	Electives	6 cr.

IV. Dissertation (12 semester hours)

NURS 994	Dissertation Seminar	3 cr.
NURS 995	Dissertation	9 cr.

¹May also take SAHE 631

²May also take ALS 802

³May also take SAHE 737

PhD in Nursing: DNP to PhD Pathway

PhD in Nursing for those with a Doctorate of Nursing Practice (DNP) is designed to develop nurse scholars who are prepared to conduct advanced research in nursing education. Graduates will synthesize knowledge from nursing and related disciplines as they assume leadership roles in diverse educational environments.

The program is designed for nurses interested in pursuing a career in academia with a research focus on nursing education. This accelerated PhD program pathway awards advanced standing based on prior work completed in a doctorate of nursing practice (DNP) program. Twenty-seven credits from the DNP program will fulfill the requirements of the PhD program. A minimum of 33 credits of doctoral coursework taken at IUP will be required. Upon completion of the PhD in Nursing program, the graduate is prepared to:

- Assume leadership in diverse educational environments.
- Synthesize knowledge from nursing and related disciplines to facilitate learning and foster development of students and educators.
- Conduct advanced nursing research that contributes to the generation of knowledge within nursing education.
- Model the role of nursing scholar and effective nurse educator.

Admission Requirements

Students seeking admission to the PhD in nursing program for those with a DNP must satisfy the minimum School of Graduate Studies and Research requirements. Applicants must also submit the following for review by the doctoral program committee: official higher education transcripts, nursing license, current curriculum vitae, writing sample, and letters of recommendation. A DNP degree and a total of at least 60 credits in nursing beyond the bachelor's degree are required to enter the accelerated PhD program option. Additionally, all applicants must possess and maintain a current nursing license. Refer to the nursing doctoral student application packet for additional information about the admission process. Additional information about the program can be found at <http://www.iup.edu/rn-alliedhealth/>

Curriculum

The accelerated PhD in Nursing program pathway requires a minimum of 33 semester hours of graduate credits. Each student must also satisfactorily complete the comprehensive examination and the dissertation.

PhD in Safety Sciences

The Doctor of Philosophy in Safety Sciences prepares safety professionals with advanced skills in the anticipation, recognition, evaluation, control, and prevention of safety, health, and environmental hazards in the work environment. Graduates of this degree program will be able to conduct independent research.

Admission Criteria - Required

It is expected that students entering the PhD program in safety sciences will already have completed a master's degree in safety sciences, occupational safety, industrial hygiene or other closely related discipline. A highly qualified applicant may enter the doctoral degree program with a baccalaureate degree. Such students must meet the Master of Science in Safety Sciences

degree program admission requirements and complete the Master of Science in Safety Sciences degree requirements en route to the PhD

Students with a master's degree in safety or a closely related field seeking admission to the Doctor of Philosophy in Safety Sciences degree program must meet the following criteria:

- Have earned a master's degree from a regionally accredited college or university
- A student must have a master's degree in safety sciences or a closely related field such as industrial hygiene, environmental health, or ergonomics. Students not possessing a master's degree in safety sciences or a closely related field but having a master's degree in a technical field such as industrial engineering may be admitted to the program provided they can demonstrate they meet competency areas in math, chemistry, physics, safety management, industrial hygiene, fire safety, and ergonomics. The competency areas can be met through prior coursework, certifications, or taking additional coursework. Applicants will also be required to demonstrate an ability to conduct independent research through a thesis, published research article, etc.
- Have a minimum graduate grade-point average of 3.0 (on a 4.0 scale)

Additionally, the doctoral coordinator, after consulting with the department screening committee, will submit a recommendation regarding applicants to the School of Graduate Studies and Research. The following criteria are reviewed:

- All official college transcripts
- Three letters of recommendation
- Statement of goals
- Resume
- Official GRE scores (general test)
- Example of written work, e.g., thesis, articles, reports, etc.

International students must also meet Graduate Admissions requirements for international students. These requirements include:

- Submission of Test of English as a Foreign Language (TOEFL) scores for applicants from people whose native language is not English. The minimum TOEFL score for admission to the program is 540.
- Submit a Foreign Student Financial Statement. International students must document their ability to assume full responsibility for the cost of graduate education per Graduate School requirements.

Application details can be found at the School of Graduate Studies and Research website: <http://www.iup.edu/admissions/graduate/howto/default.aspx>

Required Course Work

I. Core Courses (33 semester hours)

SAFE 800	Pedagogical Practices in Safety Education	3 cr.
SAFE 801	Environmental Impact Assessment and Documentation	3 cr.
SAFE 802	Safety Management Systems	3 cr.
SAFE 803	Epidemiological Analysis in Safety Sciences	3 cr.
SAFE 804	Legal Aspects of Safety Sciences	3 cr.

SAFE 805	Strategies in Risk Control	3 cr.
SAFE 806	Advanced Topics in Environmental Health and Safety	3 cr.
SAFE 808	Curriculum Evaluation in Safety Education	3 cr.
SAFE 813	Practicum in Safety Education	3 cr.
SAFE 873	Disaster Preparedness	3 cr.
SAFE 874	Fire Safety in Building Design	3 cr.

II. Advanced Applied Research (9 semester hours)

SAFE 810	Applied Research I: Experimental Design	3 cr.
SAFE 811	Applied Research II: Multivariate Statistics	3 cr.
SAFE 807	Applied Research III: Doctoral Colloquium in Safety Sciences	3 cr.

III. Dissertation (12 semester hours):

SAFE 995 Dissertation	1-12 cr.
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Comprehensive Examination

Upon completion of their coursework, doctoral students will be required to arrange a written comprehensive exam with their major advisor. This pass/fail examination will encompass all coursework completed to that point in the degree and focus on subject areas expected to be explored by the student during his/her dissertation research. Upon successful passing of the comprehensive examination, a student may proceed toward fulfillment of remaining degree requirements, beginning with the completion and defense of the dissertation proposal (typically the introduction and proposed methodology of the dissertation). If a student does not pass their comprehensive examination, they are allowed to retake the examination once.

Proposal Development and Defense

Students will be required to successfully complete an oral defense of their dissertation proposal before their dissertation committee. Although the format and content of the dissertation proposal will be specific to each student, it is expected that each dissertation proposal will consist of at least of the following sections: an introduction, literature review, purpose and rationale, hypotheses and proposed methodology/analysis plan. Upon completion of the proposal defense, a student may proceed toward fulfillment of the dissertation requirements.

Dissertation Defense

Upon the completion of the written dissertation, students must successfully complete an oral defense of their dissertation. The defense shall be completed before the student's dissertation committee comprised of the Committee Chairperson and committee members. The membership and procedures of the dissertation committee shall follow the requirements of the School of Graduate Studies and Research.

In accordance with university guidelines, in order to confer the doctoral degree, successful completion of a doctoral dissertation (12 semester hours) and defense is required.

Cohort Model

Most students entering this degree program can be expected to be full time working professionals seeking to advance their education and in many cases, change their careers paths to higher

education, thus the Department of Safety Sciences will admit a limited number of students in a cohort model.

Distance Education

It is anticipated that most students seeking a doctoral degree in this program will be working, full-time, safety professionals from around the United States. To make the program available to a larger number of students, 24 hours of the 54 hours in the degree program will be offered through distance education. Two courses will be offered as one week courses during the summers on the IUP campus.

Part-time Study

This program may admit each year a limited number of students whose intention is to complete the program on a part-time basis. Such students are alerted that course offerings can be expected to fluctuate, especially in the expansion of new course offerings. A complete and updated description of any changes can be obtained from the Safety Sciences Department.

PhD in School Psychology

The School Psychology PhD Program is ideal for psychology and/or education students looking to expand their horizons. Students can enter with a bachelor's degree, and earn their PhD with as few as five years. Admission into the program at all levels requires evidence of previous scholarship and/or potential for academic success, personal and professional qualities deemed necessary to function as a school psychologist, and motivation for professional excellence and leadership in the field.

Admission Criteria

We accept applications year-round, allowing you to study full-time on your way to earning an MEd in Educational Psychology, a Post-Master's Certification in School Psychology, and a PhD in School Psychology in as little as five years. A M.Ed. in Educational Psychology is earned after successfully completing 36 credits of the required courses (see course sequence). In most cases, students reach that degree after Year 2, Summer II.

Applications before January 15 are encouraged to ensure a spot in the program for the following fall semester. Individuals seeking admission to the program must complete the Graduate Admissions application. The following application materials are also required: two letters of recommendation, transcripts, Graduate Record Examination (GRE) for the General Test, goal statement, and application fees. After these materials have been received, applications will be reviewed and qualified applicants will be selected for interviews with the School Psychology Admissions Committee. Admission to the PhD Program is based on evaluation of the application materials, and work history, professional goals, and personal characteristics as determined during the interview. Program graduates are eligible for school psychologist certification as a Supervisor of Pupil Services through the Pennsylvania Department of Education.

Program Requirements

Total: 123 Credits

Note: The course sequence below is an example. Scheduling of courses is subject to change.

Pre-Summer – Summer I

EDEX 650	Exceptional Children and Youth	3 cr.
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Pre-Summer – Summer II

EDSP 476/576	Foundation of Behavioral Analysis	3 cr.
GSR 615	Elements of Research	3 cr.

Year 1 – Fall

EDSP 811	Introduction of School Psychology	3 cr.
EDSP 789	Psychometric Theory	3 cr.
EDSP 748	Advanced Studies in Behavioral Problems	3 cr.
EDSP 835	Advanced Psychopathology	3 cr.

Year 1 - Spring

EDSP 813	Academic Assessment	3 cr.
GSR 615	Elements of Research	3 cr.
EDSP 746	Academic Interventions	3 cr.
EDSP 766	Biological Basis of Behavior	3 cr.

Year 1 – Summer I

EDSP 705	Multicultural Issues in Schools and Communities	3 cr.
EDSP 755	Practicum I	3 cr.

Year 1 – Summer II

PSYC 810	Historical Trends in Psychology	3 cr.
PSYC 852	Models of Learning	3 cr.

Year 2 – Fall

EDSP 745	Crisis Intervention and Psychological Counseling of Exceptional Children	3 cr.
EDSP 863	Assessment of Personality and Behavior	3 cr.
EDSP 812	Cognitive Assessment	3 cr.
EDSP 747	Psychology of Human Development	3 cr.

Year 2 – Spring

EDSP 814	Advanced Assessment of Low Incidence Disabilities	3 cr.
EDSP 760	Group Counseling	3 cr.
EDSP 849/949	Advanced Practicum in School Psychology and Supervision	3 cr.
EDSP 818	Instructional Consultation	3 cr.

Year 2 – Summer I

EDSP 817	Applied Educational Research Methods	3 cr.
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EDSP 849/949	Advanced Practicum in School Psychology and Supervision	3 cr.
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Year 2 – Summer II

PSYC 846	Personality Theory and System of Psychology	3 cr.
Elective		

Year 3 – Fall – Doctoral Only

EDSP 911	Legal and Ethical Principles in School Psychology	3 cr.
EDSP 942	Neuropsychology of Children’s Learning Disorders	3 cr.
EDSP 915	Doctoral Seminar in Applied Educational Research	3 cr.
Elective		

Year 3 – Spring – Doctoral Only

EDSP 916	Doctoral Seminar in Advanced Educational Research	3 cr.
EDSP 978	School Counseling Practicum	3 cr.
PSYC 858	Advanced Social Psychology	3 cr.
Elective		

Year 3 – Summer I – Doctoral Only

EDSP 945	Clinical Supervision in Psychology	3 cr.
EDSP 849/949	Advanced Practicum in School Psychology and Supervision	3 cr.

Year 3 – Summer II

PSYC 975	Supervision of Pupil Services (Optional)	3 cr.
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Internship and Dissertation (18 cr.)

EDSP 952	Internship	9 cr.
EDSP 995	Dissertation	9 cr.

Certificate Programs and Certifications

Certificate in Autism Spectrum Disorder

Graduate students holding Pennsylvania Department of Education (PDE) certification can complete the following 12 credits of coursework in order to receive a Certificate related to working with students with Autism Spectrum Disorder. Completion of these courses also provides students eligibility for the PDE Endorsement Certificate in Autism Spectrum Disorder. All courses are offered via distance education. Incorporated within the four courses are 80 hours of field observation.

Program Requirements

EDEX 520	Characteristics and Etiology: A Theoretical and Practical Introduction to Autism Spectrum Disorder (with 10 Hour Field Experience)	3 cr.
EDEX 750	Assessment for Instructional Planning for Students with Autism Spectrum Disorders (with 30 Hour Field Experience)	3 cr.
EDEX 751	Instructional Interventions and Methods for Students with Autism Spectrum Disorder (with 30 Hour Field Experience)	3 cr.
EDEX 755	Family, Agency, and Community Collaboration and Team Building for Special Educators (with 10 Hour Field Experience)	3 cr.

Total Credits: 12 cr.

Graduate Certificate in Behavior Analysis

The Graduate Certificate in Behavior Analysis (18 credits) is designed to provide the student with specific knowledge and clinical skills necessary to function as a BCBA. Courses are aligned to the BACB's current task list and course content allocation (<http://bacb.com/bcba-option-1/>). These domains include foundational knowledge related to behaviorism and behavioral principles, basic behavior analytic skills, and client-centered practices. Successful completion of the Graduate Certificate in Behavior Analysis will fulfill one of the three requirements for eligibility to become a BCBA. The two remaining requirements, completion of a supervised clinical experience and earning a passing score on the BCBA Examination, are not part of this Graduate Certificate in Behavior Analysis. However, successful completion of the Graduate Certificate in Behavior Analysis will allow graduates to complete the remaining two requirements for the BCBA credential.

Admissions Criteria

Applicants must have earned a baccalaureate degree prior to enrolling in the Graduate Certificate in Behavior Analysis program. While not required, preference is made to applicants with an undergraduate degree in psychology, education, human development, social work, or other aligned disciplines. Admission to the Graduate Certificate in Behavior Analysis is based on an evaluation of undergraduate transcripts, letters of recommendation, work history, and professional goals. No one criterion dominates in the admission decision, provided there is evidence of the basic ability to do graduate work. Students must have completed an undergraduate degree prior to matriculation into the Graduate Certificate in Behavior Analysis. Students must maintain a grade point average of at least 3.25 and earn a grade of B or better in all courses while enrolled in the program. Continuous enrollment is also required unless waived

by the Coordinator of the Graduate Certificate in Behavior Analysis.

All graduate students enrolled in this program are required to maintain current Pennsylvania Criminal Record (Act 34) and Child Abuse Clearances (Act 151) as well as Act 114 (FBI Fingerprinting Record) while completing the course sequence. Applicants should be aware that some internship sites and employers may not accept placements if any criminal record is reflected on these background checks. Applicants with a criminal record, even summary offenses, are asked to disclose this history to the Coordinator of the Graduate Certificate in Behavior Analysis upon entry to and during the completion of the program. Some serious offenses, typically involving child welfare, preclude national credentialing.

Program Requirements

EDSP 576	Foundations of Behavior Analysis	3 cr.
EDSP 748	Fundamentals of Behavior Change	3 cr.
EDSP 758	Advanced Behavioral Assessment and Intervention	3 cr.
EDEX 750	Assessment for Instructional Planning for Students with Autism Spectrum Disorders	3 cr.
EDEX 753	Research Seminar in Special Education	3 cr.
EDSP 911	Legal and Ethical Principles in School Psychology	3 cr.

Counseling License Only Option

The License Only Option for admission is designed for individuals who need additional credits to meet state standards for licensure. In order to be eligible for the License Only Option, individuals need to have completed a minimum of a 36-credit-hour (pre-2009) master's degree and meet grand-parenting criteria as outlined by the licensure board, or individuals need to have completed a minimum of a 48-credit master's degree.

Applicants should contact the department to have their transcript(s) evaluated in order to determine in which courses they could enroll. The final determination of course acceptability for licensure is made by the state licensing board. If a student has a question about a course being accepted for licensure or about meeting grand-parenting criteria, he or she should contact the licensure board directly. Applicants for the "License Only" status must meet the same admissions requirements as degree-seeking applicants.

Dietetic Internship Certificate Program

The Dietetic Internship is an accredited supervised practice program for 12 eligible students that are selected in April from applicants that apply in February of each year. Eligible students must have a Bachelor's degree, a verification statement from an accredited undergraduate Dietetics Program, and be accepted to the IUP School of Graduate Studies and Research. Applications for the dietetic internship must use the computerized application administered by the Dietetic Internship Centralized Application Services (<https://portal.dicas.org/>) and participate in computer matching (administered by D & D Digital, <https://www.dnddigital.com/>). The dietetic internship program is accredited by the Accreditation Council for Education of Nutrition and Dietetics of the Academy of Nutrition and Dietetics and meets the required competencies required to become a Registered Dietitian Nutritionist. Students who complete the dietetic internship are eligible to take the national examination to become a Registered Dietitian Nutritionist. Students that

complete the dietetic internship track may choose to complete the IUP Master of Science in Food and Nutrition. Additional information about the dietetic internship and the M.S. in Food and Nutrition is available on the Department of Food and Nutrition website: www.iup.edu/foodnutrition.

Program Requirements

Summer*	FDNT 773	Advanced Clinical Nutrition Therapy	3 cr.
Summer*	FDNT 612	Administration of Food Services Systems	3 cr.
Summer*	FDNT 635	Nutrition Intervention, Counseling, and Educational Strategies	3 cr.
Fall**	FDNT 696	Dietetic Internship	4.5 cr.
Spring	FDNT 696	Dietetic Internship	4.5 cr.

*Students complete 9 credits in the summer prior to starting supervised practice.

** Students complete over 1200 hours of supervised practice in clinical nutrition, foodservice management, and nutrition intervention and community education, as required by the accrediting agency. Graduate students are considered full-time if they are enrolled for 4.5 credits each semester.

English 7-12 Certificate

The Post-baccalaureate English 7-12 Certificate is a 24-credit teaching certification program for English majors or equivalent majors who did not earn teacher certification as undergraduates and/or who may be enrolled in a Master's in English program and wish to add Pennsylvania state certification for secondary English. Some applicants will have an equivalent degree such as a BA in creative writing and some may be equivalent fields such as theater. The post-bac program director and faculty team will be conducting a thorough review for each applicant and will require additional course work (as stated in the program requirements) if candidates do not meet required English courses that match our BA in English or education pre-requisites according to the three-step process for certification at IUP.

The IUP English department already offers three Master of Arts in English degrees in Literature, in Composition and Literature, and in TESOL. This certification can be added to these existing M.A. programs. Students could opt to add the post-bac certification in English to their M. A. degree, or get the post-bac first and continue on to complete one of these Master's degrees, offering options and flexibility for graduate students that are both time and cost effective. Candidates can also combine this certification with the IUP ESL certification program.

Program Requirements

I. Core Courses (9 cr.)

EDUC 552	Teaching English & Communication in the Secondary School	3 cr.
ENGL 518	Young Adult Literature	3 cr.
ENGL 614	Critical Pedagogy	3 cr.

II. Electives in Teaching, Learning, and Schools (6 cr.)

EDSP 704	Advanced Educational Psychology	3 cr.
EDEX 650	Exceptional Children and Youth	3 cr.

III. Professional Practice (9 cr.)

ENGL 698/001	Internship	3 cr.
ENGL 698/002	Student Teaching	6 cr.

Total Credits: 24 Cr.

- Qualifications for candidates: B.A. in English or related field. Some courses may need to be added to the program of study depending upon transcript review. Undergraduate minimum GPA 2.6 if the degree was earned in the past 5 years (2.4 minimum if degree was earned more than 5 years ago).
- ESL Certificate Option: Students may add this option while in the program.
- Options for Master's Degree: Students may opt to add credits to earn a M.A. Literature, M.A. Composition and Literature, or M.A. TESOL degree.
- Students must maintain a minimum GPA of 3.0 for Pennsylvania state teacher certification.

Students must pass the Praxis II English Language Arts: Content Knowledge examination to be cleared for student teaching and to earn Pennsylvania Instructional I Teaching Certificate

Geography: Geographic Information Science and Geospatial Techniques (Certificate)

The Department of Geography and Regional Planning offers a program of study leading to a Certificate in Geographic Information Science and Geospatial Techniques. This 18-credit program provides instruction on the concepts of geographic information sciences and the technical and applied aspects of geographic information systems and other geospatial technologies, such as remote sensing, global positioning systems, and spatial databases.

The Certificate in Geographic Information Science and Geospatial Techniques is designed for persons who already have an undergraduate degree from an accredited university and who are interested in increasing their knowledge base and skills in GIS to take advantage of opportunities in the job market. Students enrolled in the Certificate program who become interested in pursuing a graduate degree in the department will be permitted to apply the maximum number of certificate credits allowed by the IUP School of Graduate Studies and Research toward a Master of Science degree. Students who complete the certificate will have exposure to and grasp the nature of 1) the basis and logic of map projections and geographic coordinate systems; 2) geographic information systems hardware and software; 3) the basis and logic of various spatial data models and structures; 4) techniques for the assessment, planning, and development of spatial databases; 5) appropriate and accepted methods of spatial data analysis; and 6) representation of spatial and non-spatial data through maps and other techniques.

Program Requirements

All students will be required to complete successfully a total of 18 credits, of which nine hours (three courses) will be core courses. The student will need to choose nine hours (three courses) of electives to complete the program.

I. Core Courses (9 cr.)

GEOG 515	Introduction to Remote Sensing	3 cr.
GEOG 516	Introduction to Geographic Information Systems***	3 cr.
GEOG 517	Technical Issues in GIS*	3 cr.

II. Elective Courses (9 cr.)

GEOG 513	Cartography	3 cr.
GEOG 514	Map and Photograph Interpretation	3 cr.
GEOG 521	Enterprise GIS Management*	3 cr.
GEOG 618	GIS Applications Development*	3 cr.
GEOG 675	Spatial Analysis Techniques*	3 cr.
GEOG 680	Seminar**	3 cr.
GEOG 681	Special Topics**	3 cr.
GEOG 699	Independent Study**	3 cr.

* Indicates that GEOG 516 Introduction to GIS is a prerequisite for the course.

** Indicates that permission of the instructor is needed to enroll in the course.

*** Indicates that GEOG 518 or GEOG 519 may be substituted at discretion of the certificate committee.

English as a Second Language Specialist Certificate

The English as a Second Language (ESL) Specialist Program certificate is a graduate certificate which recognizes students have taken courses ESL pedagogy, theory, materials development, and assessment. This certificate is also in line with the requirements from Pennsylvania Department of Education to be awarded a specialist endorsement to students holding a Teaching certificate.

Program Requirements

I. Courses (15 cr.)

ENGL 641	Topics in ESL Pedagogy	3 cr.
ENGL 644	ESL Material and Media	3 cr.
ENGL 724	Second Language Acquisition	3 cr.
ENGL 742	Cross-cultural Communication	3 cr.
ENGL 681	Field Internship	3 cr.

Certificate in School Psychology

The Certificate in School Psychology (33 credits) is designed to provide the student with specific clinical skills necessary to function as a school psychologist. This program is approved by the National Association of School Psychologists (NASP).

Courses focus on the professional practices and services provided by the school psychologist, including data-based decision making, school-wide practices to promote learning, consultation and collaboration, prevention and crisis intervention, academic intervention, mental health services, family-school collaboration, law/ethics, and the use of psychological practices in multicultural educational settings. Coursework is closely aligned with the NASP Model for Comprehensive and Integrated School Psychological Services.

Admissions Criteria

Applicants must have earned their master's degree in educational psychology prior to enrolling in the Certificate program. Admission to the Certificate in School Psychology is based on an evaluation of undergraduate and graduate transcripts, letters of recommendation, GRE test scores, work history, professional goals, and personal characteristics as determined during the interview. No one criterion dominates in the admission decision, provided there is evidence of the basic ability to do graduate work. Applicants who have earned a master's degree in a closely related field of study may also apply and be considered for admission into the Certificate in School Psychology program. If a transcript review shows that a student with a master's degree has not had all necessary courses required to go on to the Certificate in School Psychology, more courses at the master's level will have to be taken before the certificate sequence is begun.

Students must maintain a grade point average of at least 3.25 and earn a grade of B or better in all core courses while enrolled in the program. Continuous enrollment is also required for the Certificate program unless waived by the Coordinator of the Certificate Program and the School Psychology Committee.

All graduate students enrolled in this program are required to have Pennsylvania Criminal Record (Act 34) and Child Abuse Clearances (Act 151) as well as Act 114 (FBI Fingerprinting Record) prior to any placement in a school setting or intermediate unit. Applicants should be aware that some districts or intermediate units may not accept placements if any criminal record is reflected on these background checks. Applicants with a criminal record, even summary offenses, are asked to disclose this history to their program advisor upon entry to the program to facilitate placement. Some serious offenses, typically involving child welfare, preclude state certification.

Program Requirements

Course work includes:

EDSP 747	Child and Adolescent Development*	3 cr.
EDSP 717	Applied Educational Research Methods*	3 cr.
EDSP 812	Assessment for Intervention I*	3 cr.
EDSP 814	Advanced Assessment for Low Incidence Disabilities*	3 cr.
EDSP 818	Instructional Consultation*	3 cr.
EDSP 852	Internship*+	6 cr.
EDSP 949	Practicum II*	6 cr.
EDSP 863	Assessment of Personality and Behavior Problems in Children*	3 cr.
---	Approved Elective**	3 cr.

*Core course for the MEd program.

**All electives must be approved by the student's departmental advisor and may be chosen to enhance the student's interest in school psychology, human development and learning, or educational evaluation and research.

+The certification program includes an internship (EDSP 852) that encompasses a minimum of 1,200 hours, at least half of which occur in a school setting.

Preparing Future Faculty Certificate

The Preparing Future Faculty (PFF) Certificate provides graduate students an opportunity to gain experience and skills necessary to teach at a college or university in their disciplines, while completing their graduate degree at IUP. The Certificate is provided through the Center for Teaching Excellence and the School of Graduate Studies and Research, though students must have approval from their specific graduate program coordinators. Students must complete core classes (9 credits) within their degree programs, complete an approved teaching class (3 credits), and participate in activities specific to skill learning and teaching practice. This certificate provides interested students the exposure to faculty life in a protected educational context, and allows them to make an informed decision about whether or not they want an academic career, while gaining the experience to be competitive if they choose to move forward into teaching.

The Certificate in Preparing Future Faculty is a cohort program of approximately 20 graduate students beginning each fall semester. Students must submit an application of interest to the School of Graduate Studies and Research no later than August 1. The applications will be reviewed by the Center for Teaching Excellence Advisory Board and notification will be provided to the student and their respective Graduate Coordinator.

Graduate students in the certificate program must complete twelve credits of course work. Nine graduate credits in their major department that represent core material for their field. Graduate Coordinators will make the determination which courses meet that requirement. A three credit teaching class (as determined by the Center for Teaching Excellence) is also required. Meeting with a faculty mentor, guest lecturing in relevant courses, as well as attendance at monthly workshops are also required for the certificate.

Program Requirements

- Approved teaching course completed
- Minimum of nine (9) graduate credits completed in discipline
- Three graduate credit teaching course
- Weekly meetings with Faculty Mentor (minimum 30 hours)
- Undergraduate Lecture/Guest Speaker 1
- Undergraduate Lecture/Guest Speaker 2
- Undergraduate Lecture/Guest Speaker 3
- Undergraduate Lecture/Guest Speaker 4
- Center for Teaching Excellence (CTE) Evaluation
- Video Assessment 1 (1000 word response)
- Video Assessment 2 (1000 words response)
- Research Presentation
- Senate Meeting Participation (1000 word reflection paper)
- Service Commitment (minimum 20 hours)
- CITI Certificate (copy of certificate)
- CTE Workshops (attendance at a minimum of 6)

Principal Certification Program

The IUP Principal Certification Program is a performance-based program. To be successful in this program, students must have the support of the district superintendent and principals at the elementary and secondary levels in order to accomplish the competency requirements as detailed in the Internship Handbook.

Admissions Criteria

The program requires a master's degree or a master's equivalence and a certificated instructional position within a school district. Those seeking principal certification must be initially certified as a teacher, guidance counselor, librarian, school psychology, or some other instructional-related professional position in the school prior to engaging in principal certification work and have three years' experience upon applying for certification.

Be aware that at the completion of this program you will be required to provide verification of completion of three years of relevant professional experience from your district superintendent upon application for certification.

See application instructions: <http://www.iup.edu/pse/grad/principal-certification/application-requirements/default.aspx>

Program Requirements

Course work includes:

EDAD 756	School Administration	3 cr.
EDAD 798	Principal Internship	12 cr. (two 6-credit internships)

Total credits: 15 cr.

Reading Specialist Certification (non-degree seeking)

The Certification Program is a 27 credit program that meets all of the requirements for a certification as a reading specialist by the Pennsylvania Department of Education for individuals who are non-degree seeking. Required courses for this certificate are:

LTCY 600	Foundations of Literacy Instruction	3 cr.
LTCY 607	Instruction and Learning with Literature	3 cr.
LTCY 635	Literacy in Inclusive Classrooms	3 cr.
LTCY 644	Issues and Trends in Language Arts	3 cr.
LTCY 701	Assessment and Acceleration	3 cr.
LTCY 702	Reading and Writing in the Content Areas	3 cr.
LTCY 705	Organization and Administration of Reading/Writing Programs	3 cr.
LTCY 770	Practicum and Seminar for Reading Specialists I	3 cr.
LTCY 771	Practicum and Seminar for Reading Specialists II	3 cr.

School Counseling Certification Only

Those students already possessing a master's degree and seeking School Counseling certification (elementary or secondary) may apply to the counseling program for "Certification Only" status.

Applicants should contact the department to have their transcript(s) evaluated in order to determine in which courses they could enroll. The final determination of course acceptability for certification is made by the Pennsylvania Department of Education (PDE). If a student has a question about a course being accepted for certification or about meeting grand-parenting criteria, she or he should contact PDE directly. Applicants for the "Certification Only" status must meet the same admissions requirements as degree-seeking applicants.

Certificate in Supervision of Pupil Services

As part of its mission to serve the needs of Pennsylvania's schools in providing a cadre of highly trained pupil services administrators, the Department of Educational and School Psychology of the Indiana University of Pennsylvania (IUP) offers a certification program in the area of Supervisor of Pupil Services as an optional part of its doctorate in school psychology. The program prepares doctoral-level school psychologists with the requisite supervisory skills to apply for the supervisory certificate through the Pennsylvania Department of Education (PDE) and to ultimately be employed as pupil services directors in school districts in Pennsylvania and other states.

Program Requirements

EDEX 650	Education of Exceptional Persons and Youth
EDSP 711	Introduction to School Psychology
EDSP 717/817	Evaluating the Effectiveness of Program Interventions
EDSP 812	Cognitive Assessment
EDSP 813	Academic Assessment
EDSP 818	Consultation in Applied Settings
EDSP 915	Doctoral Seminar in Applied Educational Research
EDSP 949	Advanced Practicum and Supervision
EDSP 952	Internship
EDSP 975	Supervision of Pupil Services

Certificate: Simulation and Technology

The Simulation and Technology certificate will present an avenue to prepare nurses and faculty for roles in clinical practice and education, including those teaching in licensed practical nurse (LPN), pre-licensure registered nurse (RN), graduate nursing, and staff development settings. The certificate program will provide courses that focus on leadership, pedagogical teaching strategies, curriculum design or evaluation methods, designing, implementing, and evaluating simulation scenarios, informatics, teaching via distance education, and the use of technology in the classroom and clinical settings.

The 12-credit certificate will include courses related to leadership, informatics, teaching strategies, and simulation for the graduate student to use technology and simulation in a clinical

or lab setting under the guidance of an experienced informatics nurse or faculty. The certificate will include the following courses:

NURS/HSAD 555	Informatics in Health Care	3 cr.
NURS 711	Simulation in Nursing Education	3 cr.
NURS 864	Technology in Nursing Education	3 cr.
If Education Track:		
NURS 722/723/725 (one of these)	OR	
If Administrative Track:		3 cr.
NURS 619/729/732 (one of these)		

Admission Requirements

Current R.N. license, baccalaureate degree with a minimum 2.6 GPA.

Special Education Certificate Only at Graduate Level

The Special Education Certificate is an 18-credit program offered by the Special Education program in the Department of Communication Disorders, Special Education, and Disability Services. The program leads to PA certification in Special Education. Students choose from two options: Special Education Certification preK-8th grade or Special Education Certification 7th-12th grade. All students take courses related to characteristics of students with disabilities, effective instructional practices, and assessment. Students focusing on preK-8th grade are required to take a course on multi-disciplinary collaborations. Students focusing on 7th-12th grade are required to take a course on transition services. All students must complete a practicum experience.

The Special Education certificate was designed for persons who have initial teaching certification in a content area such as Early Childhood Education, English Education, or Art Education. Eighteen credits are the minimum requirements for PA teacher certification in Special Education. Students who do not have prerequisite methods courses may be required to take additional courses; individual programs will be designed based on a review of transcripts.

Certificate Requirements*

EDEX 569	Education of Persons with Emotional or Behavioral Disorders, Learning Disabilities or Brain Injury
EDEX 578	Education of Persons with Mental Retardation, Developmental, Physical or Multiple Disabilities
EDEX 752	Assessment of Persons with Disabilities
EDEX 754	Advanced Instructional Design in Special Education
EDEX 785	Practicum and Internship (severe)
EDEX 558	Transition Assessment and Planning for Youth with Disabilities (required for 7-12 certification)
OR	
EDEX 755	Professional Collaboration and Team Building for Special Educators (required for PreK-8 certification)

*PECT exams are also required to obtain PA certification. Minimum requirements: Additional coursework may also be required for PA certification.

TESOL Graduate Certificate

The TESOL Graduate Certificate is an 18-credit program offered through the English department. It aims at preparing teachers who wish to teach English abroad. Specific topic areas covered in this program are the social and political aspects of teaching English as an international language; TESOL methodologies and instructional materials; second language literary; and research in applied linguistics. Electives offered in the program may also expand students' knowledge regarding linguistics, ESL assessment, teaching writing, cross-cultural communication, and world Englishes.

The TESOL graduate certificate was created specifically for persons who already have an undergraduate degree from an accredited university and who are interested in teaching English abroad. Upon completion of the program, students will be provided information about finding teaching positions abroad. Students who complete the program and desire to pursue a master's in TESOL will be able apply credits earned through the TESOL graduate certificate program toward the completion of the MATESOL program if students enter the MATESOL program within two years of finishing the TESOL graduate certificate program.

Program Requirements

All students will be required to successfully complete 18 credits, of which 12 will be required. Students will need to choose two (3-credit) electives in order to complete the TESOL graduate certificate program.

I. Required Courses (12 credits)

ENGL 625	Introduction to TESOL	3 cr.
ENGL 644	TESOL Methodology, Materials, Instructional Technology	3 cr.
ENGL 649	Introduction to Research	3 cr.
ENGL 725	Second Language Literacy	3 cr.

II. Electives (6 credits)

ENGL 754	World Englishes	3 cr.
ENGL 742	Cross Cultural Communication	3 cr.
ENGL 734	Linguistics and the English Teacher	3 cr.
ENGL 641	Topics in ESL Pedagogy: Critical ESL Assessment	3 cr.
ENGL 723	Second Language Teaching	3 cr.
ENGL 730	Research and Practice in the Teaching of College Composition	3 cr.

Course Descriptions (Alphabetic Listing by Department)

ACCT: Accounting

Department of Accounting

Eberly College of Business and Information Technology

ACCT 500 Fundamentals of Financial Accounting 1.5 cr.

This course is designed for EMBA students without prior accounting background to prepare them for the MBA course in Managerial Accounting. The objective of the course is to familiarize the student with the basic concepts, standards, and methods of financial accounting and the interpretation of accounting information for financial decision-making in organizations. EMBA students with prior academic course/s in accounting can apply for a waiver from this course.

ACCT 501/* Advanced Accounting 3 cr.

Study of business combinations and consolidations as well as accounting problems of specialized nature such as goods on consignment, installment sales, receivership accounts, agency and branch accounting.

Prerequisite: ACCT 305 or equivalent (9 cr. of Accounting).

ACCT 502 Foundations of Financial Accounting 3 cr.

A basic course for graduate students encompassing the concepts of accounting fundamentals, external reporting and the interpretation of accounting principles, and external reporting and the interpretation of accounting information for financial decision-making in domestic and international corporations.

ACCT 512/* Advanced Cost Accounting 3 cr.

Theory, preparation, and use of budgets, analysis of cost variances, direct costing, and extensive analysis of various cost control and profit planning programs.

Prerequisite: ACCT 311.

ACCT 521/* Federal Tax I 3 cr.

Introduces the fundamental concepts of federal taxation, with special emphasis on individuals. Creates an awareness and recognition of the tax consequences involved in financial decision-making, with special emphasis on use of professional tax software and Internet resources.

ACCT 531/* Auditing 3 cr.

A study of auditing theory and practical application of auditing standards and procedures to the verification of accounts and financial statements, working papers, and audit reports.

Prerequisite: ACCT 305.

ACCT 541/* Accounting for Government and Nonprofit Organizations 3 cr.

Presents the views or authoritative professional organizations as to desirable standards of account and reporting for governmental and nonprofit entities. Topics include budgeting and budgetary accounts, accounting for various funds and account groups, the financial reporting process, and application of the principles of fund accounting in specific areas.

ACCT 575 Accounting for the Oil and Gas Industry 3 cr.

Designed to provide an introduction into the accounting theory, practices, and reporting requirements for the oil and gas industry. The significance of the industry in a global economy and the impact on International Financial Reporting Standards will be addressed. Prerequisite: None.

ACCT 581 Special Topics in Accounting 1-3 cr.

Covers advanced or exploratory topics within the discipline. Specific content developed by the instructor. Content will vary depending upon the interest of the instructor and the students' need and demand for the advanced or exploratory topic. Prerequisite: Permission of the instructor and Eberly College of Business and Information Technology graduate coordinator.

ACCT 607 Management Accounting 3 cr.

Designed for management personnel who are not accountants but who need to understand the accounting process and the use of accounting information by management in making decisions and in performance evaluation. Prerequisite: ACCT 202. Not open for credit for students with constructive credit for ACCT 311.

ACCT 681 Special Topics in Accounting 3 cr.

Covers advanced or exploratory topics within the discipline. Specific content developed by instructor. Content will vary depending upon the interests of instructor and students with instructor choosing specific topics. May be repeated by specific approval. Prerequisites: Permission of the instructor and the Eberly College of Business and Information Technology graduate coordinator.

ACCT 698 MBA Internship 1.5 or 3 cr.

A planned, field-based, individually designed, and faculty-supervised work-experience to enhance the student's professional competence in Business Administration and selected functional area. Maximum of 3 credits can be applied towards MBA electives. Prerequisites: Completion of 15 graduate credits and approval of department chair and graduate coordinator.

ACCT 699 Independent Study in Accounting 1-3 cr.

Individual research and analysis of contemporary problems and issues in a concentrated area of study under the guidance of a senior faculty member. Prerequisites: Consent of instructor, departmental chairperson, and dean, Eberly College of Business and Information Technology.

ACCT 795 Thesis 4-6 cr.

For students writing the thesis, ACCT 850 should be scheduled for the semester in which they plan to complete their work. The thesis is a committee thesis (4-6 cr.) for which the student's advisor, two additional faculty members, the Eberly College of Business and Information Technology graduate coordinator, and/or the representative of the dean, Eberly College of Business and Information Technology, may constitute the committee.

ACCT 840 Seminar in Managerial Accounting 3 cr.

This doctoral level seminar will address major issues in the area of managerial accounting and their business applications by reviewing the current literature and analyzing appropriate case

studies. This course introduces current theoretical and methodological issues in managerial accounting and their relevance in business decision making. Review of selected topics in accounting research are also presented along with their implications for cross functional applied business research. Course also covers legal and ethical dimensions involved in the field.

*Indicates dual-listed class

ACE: Adult and Community Education

Department of Adult and Community Education
College of Education and Communications

ACE 590 Improving Professional Practice in Instructional Settings 1-3 cr. and

ACE 591 Improving Professional Practice in Instructional Settings 1-3 cr.

Reviews current research in instructional practices, motivational techniques, and professional issues. The course may focus on any of these aspects of teaching, learning, or professional practice. In addition, the course may be presented with a kindergarten through grade twelve, elementary, middle school, secondary, or adult orientation. This course is offered only for continuous professional development and may not be applied toward a graduate degree.

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

ACE 600 Introduction to Instructional Design 3 cr.

Provides an overview of models and processes of instructional design. The purpose of this course is to introduce basic instructional design processes, theories, and models of instructional design, learn the basics of instructional design, and to explore history and current and future trends in instructional design.

ACE 610 Learning Management Systems 3 cr.

Examines the practical use of computers as tools for developing effectiveness and efficiency in training and education through the use of Learning Management Systems (LMS). Learners explore the use of the computer in school and non-school training and education settings, conduct critical evaluation of LMS and computer-based instructional/training materials, and develop strategies for integrating computing into the total learning environment. Current research in the area of instructional computing and its implications for training and education are also discussed.

ACE 617 Distance Education Technology 3 cr.

Explores the use of the computer software to enhance effectiveness and efficiency in developing teaching and training via distance education. Learners explore the use of the various software used in school and non-school teaching or training settings, conduct critical evaluation of software currently used in industry (both educational and corporate), and integrate these software products into the teaching/training and development environment. Current research in the area of instructional computing and its practical implications for teaching and training and development are also discussed.

ACE 620 Introduction to Adult and Community Education 3 cr.

A survey course which examines the fields of adult and community education philosophically and historically and in terms of current programs and processes. The course includes the study of adult and community education principles and concepts as well as available literature and resources.

ACE 621 The Adult Learner 3 cr.

This course focuses on the adult as learner, including physiological, psychological, and sociological characteristics and their effect on learning.

ACE 622 Program and Project Planning 3 cr.

Provides a hands-on approach to planning education and training programs and instructional design projects. ACE 622 is a knowledge and skill-building course designed for present and future instructional designers, trainers, and adult and community education professionals. This how-to course examines concepts and practices relevant to the development of education and training programs and instructional design projects in a variety of settings.

ACE 623 Organizational Leadership in Adult and Community Education 3 cr.

This course introduces the student to basic theories of leadership management and organizational structure. It includes study and application of the tasks, tools, strategies, and leadership roles of adult and community education administrators. Prerequisite: Permission.

ACE 625 Teaching Adults 3 cr.

This course examines teaching and learning theories as they relate to adults: the teaching-learning process in a variety of educational settings; instructional methods, techniques, and devices which are effective with adults; and instructional designs and evaluative methods effective in the teaching-learning process. Prerequisite: Permission.

ACE 630 Distance Education and Pedagogy 3 cr.

Examines effective teaching in online and distance learning environments. Topics include preparing to teach, basic considerations of distance education teaching, distance education teaching strategies, assessing learners, and issues related to special needs and cultural diversity of learners.

ACE 635 Issues in Distance Education 3 cr.

This course explores the development, delivery, and evaluation of distance education in a variety of settings including educational institutions, business and industry, health care, and government. Specific topics addressed include online pedagogy, delivery systems, institutional support systems, marketing and outreach, and program evaluation of distance education programs.

ACE 640 Community-Based Education 3 cr.

Community-based education has a rich history in the United States and around the world. Community-based education is educational initiatives generated by individuals and groups outside of formal educational structures, frequently for the purpose of achieving social change. Following are some of the concepts investigated in this course: social, cultural, and economic reasons for the origins of community-based education, support structures generated to sustain

and enhance community-based education, types of learning that results, both individually and communally, and the outcomes of community-based education that affect individuals, groups, and communities.

ACE 650 Current Topics in Adult and Community Education 3 cr.

Explores current issues, trends, and topics in depth in a workshop format. Topics will be selected by the faculty and announced in advance of the semester in which the course is to be offered. Topics may include issues in continuing higher education, volunteerism, adult career development, managing nonprofit organizations, group processes in adult education, and current issues in research.

Prerequisite: Permission of the instructor.

ACE 681 Special Topics 3 cr.

ACE 698 Internship 3-6 cr.

Internship in adult and community education is designed to provide practical experience for students enrolled in the Master of Arts in Adult and Community Education. Students will work under the supervision of a faculty member to design an individualized internship experience.

Prerequisite: Permission of the instructor.

ACE 699 Independent Study in Adult and Community Education 1-3 cr.

Independent study of a topic pertinent to an individual's program of study. Permission of advisor and department chairperson required.

ACE 700 Advanced Instructional Design 3 cr.

Provides an in depth analysis of the field of instructional design and application of instructional technology in various learning environments. This course will present students with the opportunity to solve instructional design problems and to develop an original learning activity that incorporates advanced principles of instructional design. The purpose of this course is to provide students with a theoretical and practical understanding of how to design engaging and meaningful learning environments using a variety of technologies and methods to achieve learning outcomes. Students will be introduced to and have the opportunity to further explore topics including: current trends and issues in instructional design including theories, models, evaluation, program and project management, accessibility and diversity, and professional ethics.

Prerequisite: ACE 600 or Instructor Permission

ACE 735 Seminar in Adult and Community Education 3 cr.

This course involves an intensive study of special topics in adult and community education with an emphasis on developing skills to conduct a systematic review of the literature in a specific area relevant to this field of study. Research content varies according to student interest.

Prerequisite: Permission.

ACE 744 Program and Project Evaluation 3 cr.

Addresses designing, conducting and disseminating effective program and project evaluation of education and training programs and instructional design projects. This is a research based course in which students will apply research methods to plan and conduct evaluation

studies. Effective strategies for disseminating program evaluation will also be addressed. Prerequisite: GSR 615 or Instructor Permission.

ACE 745 Applied Research in Adult and Community Education 3 cr.

Practical research in adult and community education is designed to have students conduct and report a formal research study in their field of interest. Students formulate a research problem and design a plan of inquiry that will provide an answer(s) to their stated research problem. Students must be able to interpret their research findings and communicate them both orally and in writing at a professional level. Prerequisite: Permission.

ACE 750 Seminar: Technology and Adult Learning 3 cr.

This course, by providing an advanced forum in which to research, discuss, and document current and emerging topics, issues, and applications in technology and adult learning (with special emphasis on distance learning), serves to synthesize these two fields of inquiry and offers students the opportunity to conceptualize and develop models and strategies for the integrated application of theory and practice learned in earlier courses. Literature reviews, topic analyses, and case studies are used to enhance awareness of critical issues and potential application in real-life settings. Prerequisites: At least twelve completed credits, six each in ACE and COMM courses, and advisor approval.

ACE 795 Thesis 1-6 cr.

Students selecting the thesis option will complete a thesis project with a committee consisting of at least three faculty members.

ALS: Administration and Leadership

Department of Professional Studies in Education
College of Education and Communications

ALS 590 Improving Professional Practice in Instructional Settings 1-3 cr.

and

ALS 591 Improving Professional Practice in Instructional Settings 1-3 cr.

Reviews current research in instructional practices, motivational techniques, and professional issues. The course may focus on any of these aspects of teaching, learning, or professional practice. In addition, the course may be presented with a kindergarten through grade twelve, elementary, middle school, secondary, or adult orientation. This course is offered only for continuous professional development and may not be applied toward a graduate degree. Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

ALS 781 Special Topics 3 cr.

ALS 801 Leadership Theories 3 cr.

Focuses on several leadership theories related to administering social agencies, schools, business, and industry. Prerequisite: Admission to the program.

ALS 802 Leadership: A Case Study Approach 3 cr.

Acquaints students with the theory and application of the case study approach as related to

theories of leadership. Designed to provide practice for future administrators in the following areas: group decision making, leadership, planning and organizing, sensitivity, judgment, and communication skills. Prerequisite: Admission to the program.

ALS 803 Leadership: Applied Practice 3 cr.

Students must develop and implement filed project that incorporates leadership and policy theories learned in previous courses. Prerequisite: Admission to the program.

ALS 805 Curriculum Evaluation 3 cr.

Provides students with a framework for the systematic analysis of curriculum from the context of social, historical, and philosophical foundations and theory and research in the field. Emphasis will be on curricular evaluation in the context of theoretical foundations of curriculum. Prerequisite: Admission to the program.

ALS 810 Advanced Topics in Human Development and Learning 3 cr.

Students will analyze, evaluate, and synthesize theories of human development and learning. Emphasis will be on learning and development throughout the life span. Prerequisite: Admission to the program.

ALS 820 Doctoral Seminar in Research Methods 3 cr.

Provides students with the opportunity to acquire, refine, and apply the knowledge and skills to evaluate and design educationally relevant research. Emphasis in the course will be on quantitative and qualitative research approaches within educational settings. Prerequisite: Admission to the program.

ALS 825 Critical Analysis of Issues in Education 3 cr.

Examines current issues and innovations which are influencing reform in basic and postsecondary education. Relationships between research, policymaking, and implementation will be emphasized. Prerequisite: Admission to the program.

ALS 830 Analysis of Effective Instruction 3 cr.

Explores reflective practice as it relates to the design, implementation, and evaluation of instruction at all educational levels, with particular emphasis on preparation for teaching and supervising in teacher education. Topics include contemporary models of supervision and research on teaching and learning. Prerequisite: Admission to the program.

ALS 845 Administrative Procedures 3 cr.

Presents a series of administrative seminars that focus on testing, contract obligations, human relations, federal and state initiatives, and evaluation of the organization. Prerequisite: Admission to the program.

ALS 850 School and Community 3 cr.

Development and maintenance of a purposeful program of communication between the school and the community through study of selection, organization, and functions of citizen advisory committees and cooperative use of various community services. Prerequisite: Admission to the program.

ALS 852 School Evaluation 3 cr.

Current models for both formative and summative evaluations are presented with emphasis on their application to school programs and other educational projects. Prior knowledge of curriculum development and/or project proposals is helpful but not required. Prerequisite: Admission to the program.

ALS 856 School Administration 3 cr.

Designed as a basic course in school administration, this course is intended to serve as an introduction to the principles and practices of school administration for students who aspire to a supervisory or administrative position in public schools. Human aspects of educational administration are emphasized. Prerequisite: Admission to the program.

ALS 858 School Law and Negotiations 3 cr.

An understanding of legal principles as they pertain to functions of personnel in public school systems and to persons engaged in education. Study of statutory enactments, review of court actions through case studies, and analysis of collective negotiation law. Prerequisite: Admission to the program.

ALS 860 School Finance 3 cr.

Budgeting procedures in school finances, facilities, and management are presented. School budgeting, accounting, bonding, and various monetary applications are presented as well as the various procedures for acquiring funds. Prerequisite: Admission to the program.

ASL 881 Special Topics 3 cr.**ALS 882 Research Instrument Design for Leadership Studies 3 cr.**

Designed to prepare doctoral students in leadership studies to critique and develop research instruments for use in dissertation research. It will emphasize identifying the key issues associated with instrument design in leadership studies, critiquing the published instruments, writing instrument items, and conducting instrument reliability and validity analysis. Students will learn to evaluate and develop instruments through hands-on activities and individual projects. Prerequisite: Admission to the program.

ALS 883 Analysis of Qualitative Data in Leadership Studies 3 cr.

Designed to prepare doctoral students in leadership studies to conduct qualitative data analysis in dissertation research. Emphasizes identification of key issues associated with qualitative research, critique of the published qualitative research, transcription of qualitative data, interpretation and presentation of patterns, and use of computers to perform data analysis. Students will learn to analyze, present, and write qualitative research reports. Prerequisite: Admission to the program.

ALS 897 Research Synthesis 3 cr.

Provides students with an opportunity to construct rich frameworks for understanding and applying leadership theory in research and internship experiences. Engages students in the study of leadership theory and practice from a variety of perspectives, including historical, social,

political, and multicultural. Promotes theory into practice as students engage in seminar discussions based on internship experiences and dissertation proposal development. Students will create a research portfolio related to their planned dissertation study. This written work includes assignments completed research courses and extends this work to document progression toward a dissertation proposal and Research Topic Approval Form. Prerequisite: Admission to the program, ALS 820, ALS 882, ALS 883.

ALS 898 Internship and Administration and Leadership Studies 3-6 cr.

A planned, field-based work experience proposed by the advanced graduate student to enhance professional competence, subject to approval by student's advisor and program director. Prerequisite: Admission to the program.

ALS 995 Dissertation 9 cr.

ANTH: Anthropology

Department of Anthropology
College of Humanities and Social Sciences

ANTH 514/* Contemporary Native American Cultures 3 cr.

This course is an introduction to the Native American cultures of North America north of Mexico from an anthropological perspective with an emphasis on historical and contemporary cultural diversity. There is a strong emphasis on the history of culture change and continuity as well as on current political, economic, and cultural issues among the Native nations of the U.S. and Canada.

ANTH 515/* Cultural Resource Management 3 cr.

Provides an understanding of how cultural resources are being preserved and managed under current American laws and regulations with particular emphasis on historic properties, such as historic buildings and archaeological sites. Case studies and field trips are incorporated so that students gain a thorough understanding of key problems and issues in historic preservation and cultural resource management. Prerequisite: Permission of instructor.

ANTH 520/* Archaeological Field School 6 cr.

Introduction to archaeological survey, field excavation, and laboratory processing. Field school students participate in one or more of the ongoing research projects of the IUP Archaeology Program.

ANTH 556/* Ethnographic Research Methods 3 cr.

Examination of methods and practice of qualitative and quantitative research. Course emphasizes techniques for conducting ethnographic research, participant observation, ethical issues in social research, and the development of professionalism.

ANTH 560/* Ethnographic Field School 6 cr.

Ethnographic research training in the field. Emphasizes the application of qualitative research methods, the recording of data in research journals and the maintaining of field diaries, the

categorizing and organizing of data, and the writing of research reports. Prerequisite: Permission of the instructor.

ANTH 570 Environmental Archaeology 3 cr.

Environmental Archaeology is the study of past human interactions with the natural environment, including plants, animals, climate, and geologic landscapes. In this class, students will 1) get hands-on practice in the scientific techniques used to reconstruct ancient environments, including analysis of pollen, sediments and soils, and microfauna; 2) use computer software to graph & interpret data sets; and 3) discuss archaeological case studies designed to illustrate both how environmental conditions and natural hazards (e.g., volcanoes, tsunamis) impacted past human populations, as well as how people have altered and modified their environment through time. We will examine these interactions using a diachronic and comparative perspective, from the evolution of hominins millions of years ago to the recent phenomenon of the Anthropocene. Prerequisite: ANTH 244 or GEOS 201 or Instructor Permission.

ANTH 581 Special Topics 3 cr.

ANTH 584/* Specialized Methods in Archaeology 3 cr.

Provides an opportunity to learn specialized techniques and approaches presently in use in archaeology. In any one semester, the course will concentrate on one of a range of possible themes. The specific topic varies but focuses on instructing in the mechanics of the selected technique, its application to real archaeological problems, and the interpretation of the results. May appeal to students from other disciplines who wish to gain expertise in a topic that is relevant to their own field of study. Interested students should contact the instructor to find out which topic will be taught in any one semester. May be repeated for credit under a different methods title. Prerequisites: None

ANTH 586/* Historic Artifact Analysis 3 cr.

Focuses on techniques for collecting, analyzing, and interpreting data from historic period (1500 to present) artifacts commonly found on North American archaeological sites. Analytic techniques, including classification, quantification of attributes, relating artifact patterns to human activities, and statistical interpretation are taught in a hands-on environment. Outlines the history of technology as a means to identify the age and use of artifacts. Considers that all objects occurred as a thought before they were made material and how to work backwards from the material to the thought.

ANTH 587/* Geoarchaeology 3cr.

Surveys the geological methods and techniques used to investigate archaeological research questions. Includes sedimentary and geomorphic processes affecting the formation and preservation of archaeological sites; methods of paleoenvironment and paleoclimate reconstruction, and radiometric dating techniques. Illustrates the importance for archaeologists to understand the geological processes that affect archaeological sites – before, during, and after people have been there. Understanding these processes is crucial to accurately reconstructing the dynamics of human behavior.

ANTH 588/* Geophysical Applications in Archaeology 3cr.

Provides the methodological and technological knowledge to apply various geophysical systems used in archaeological investigations. These systems may include, but are not limited to, Ground-Penetrating Radar, Magnetometry, Electrical Resistivity, Conductivity, and Susceptibility.

ANTH 589/* Prehistoric Technologies of Eastern North America 3cr.

An introduction to the prehistoric technologies of Eastern North America. The course focuses on the material culture commonly recovered from pre-European Contact Native American archaeological sites, including stone, ceramic, bone, and native metal artifacts. Analytical techniques will include classification, quantification, and interpretation linking artifacts to human behavior.

ANTH 590/* Applied Spatial Methods in Archaeology 3cr.

Introduces methods used within archaeology to examine the spatial relationships between archaeological artifacts, features and sites at various scales. Explores the strengths and weaknesses of various spatial methods in archaeology. Provides students with the ability to become knowledgeable consumers of these methods in future research and working environments.

ANTH 591/* Zooarchaeology 3cr.

Introduces the archaeological specialty of zooarchaeology, which is the study of human-animal interactions through the analysis of archaeological remains from archaeological sites. Explores the basics of vertebrate osteology through lectures and hands-on exercises as well as the nature of various types of zooarchaeological interpretation such as studies of hunting and butchering practices, dietary importance, seasonality, domestication, paleopathology, and past environment.

ANTH 592/* Soil Science: Archaeological and Geoenvironmental Applications 3cr.

Introduces students to the ways in which archaeologists and geoscientists define, recognize, examine, and interpret soils in both the field and the laboratory. Examines (1) how the interactions of landform, topography, climate, and biota result in patterns of soil development and the distribution of soils that we observe within the landscape; (2) the significance of soils to other disciplines, including archaeology, Quaternary geology, and geoenvironmental science; and (3) how the physical, chemical, and biological properties of soils are influenced by human activities both past and present. Includes field trips that may occur on weekends.

ANTH 610 Archaeological Laws and Ethics 3 cr.

Intensive examination of current legal and ethical issues involved in the practice of archaeology including an examination of laws affecting the excavation and study of archaeological sites and properties.

ANTH 612 Seminar in Cultural Resource Management I: Method and Theory 3 cr.

Discussion of the theory and methods involved in the current practice of cultural resource management and how these relate to the development of research designs, proposal writing, field strategies for archaeological survey and testing, and development of project budgets.

Prerequisite: Must be taken after or concurrent with ANTH 610, or instructor permission.

ANTH 616 Pre-Columbian North American Archaeology 3 cr.

Covers the body of knowledge archaeologists have generated about the Pre-Columbian past of North America north of Mexico with emphasis on the Eastern Woodlands and explores significant substantive, theoretical, and methodological debates among archaeological scholars working in North America.

ANTH 618 Historical Archaeology 3 cr.

Provides an overview of historical archaeology, a discipline that combines the study of material culture with that of written documents as a means to gain an understanding of the peoples and cultures who lived during periods of recorded history. The course focuses on the United States since the sixteenth century, paying special attention to the contributions that historical archaeology has made to the understanding of Euro-American, Native American, and African-American peoples.

ANTH 625 Public Archaeology 3 cr.

Focuses on methods and theory of presenting archaeology to the public with special emphasis on recent scholarship and on national and regional styles of doing public archaeology. Students learn skills for designing and presenting programs about archaeology to a variety of audiences.

ANTH 694/* Anthropology Seminar 3 cr.

Considers conceptual problems and definitions in anthropology. Formulations of a variety of research problems central in anthropology emphasized.

ANTH 698 Internship 3 cr.

Involves a supervised experience, either on or off campus, in organizations utilizing archaeological skills in public or private settings. These settings include cultural resource management companies, government agencies, private, nonprofit organizations, tribal governments, and museums but may not be a student's normal place of employment, as the internship is an opportunity to expand experience in the field of applied archaeology.

Prerequisites: 18 hours of graduate credit and permission of the graduate coordinator.

ANTH 699 Independent Study 3 cr.

ANTH 714 Seminar in Cultural Resource Management II: Analysis and Interpretation 3 cr.

Discussion of the theory and methods involved in the current practice of cultural resource management and how these relate to data analysis and interpretation of survey and testing projects, assessment of site significance, development of research strategies for excavation projects, and report writing. Prerequisite: ANTH 612 or instructor permission.

ANTH 720 Issues in Historic Preservation 3 cr.

Designed to examine the history, theory, and current issues of preservation practice in the United States. Will discuss theories of what, how, and why we preserve, within the context of the evolution of the field of historic preservation. The focus will be on exploring current issues in the field of history preservation and the role of applied archaeology. Prerequisite: ANTH 612 or instructor permission.

ANTH 730 Archaeology of Pennsylvania 3 cr.

Detailed examination of the archaeology of Pennsylvania and surrounding states from the initial colonization by humans through the nineteenth century, with special emphasis on the culture history, cultural ecology, and ethno-history, as well as vernacular and industrial site archaeology. Prerequisites: ANTH 616 and ANTH 618 or instructor permission.

ANTH 740 Advanced Archaeological Field Methods 3-6 cr.

Advanced instruction in survey and excavation field methods and technology, with an emphasis on the application of research designs to field settings, and the logistics of supervising field projects. Prerequisites: Undergraduate field school and ANTH 612 or instructor permission.

ANTH 745 Seminar in Archaeological Interpretation 3 cr.

Focuses on the quantitative and qualitative interpretation of an archaeological project's often varied data for the purpose of generating higher-level interpretations of past lifeways, sociopolitical processes, and culture change. Although the course includes a consideration and critique of the methods used to generate the data sets themselves, the emphasis is on how such data is used—and its potential for misuse—in interpretation. Prerequisites: ANTH 612, ANTH 714, or instructor permission.

ANTH 795 Thesis 3-6 cr.

All students will be required to complete a thesis which can be either in the form of a policy paper or a comprehensive report on an archaeological project. The policy paper would be developed during an internship at a state or federal agency. The report would result from a project conducted as part of an advanced field project. Prerequisite: Permission of the department graduate committee.

*Indicates dual-listed class

APMU: Applied Music

Department of Music
College of Fine Arts

Applied Music (APMU 601-772) 1-4 cr.

The following courses will be taught in the form of private lessons geared to the individual student and aiming at maximum progress of each student, depending on background of the student and time available. The student should for any series of lessons use the first number in programming for the first time, the second number for the second time, etc.

APMU 601, 651, 701, 751 Private Piano
APMU 602, 652, 702, 752 Private Organ
APMU 603, 653, 703, 753 Private Harpsichord
APMU 605, 655, 705, 755 Private Voice
APMU 606, 656, 706, 756 Private Violin
APMU 607, 657, 707, 757 Private Viola
APMU 608, 658, 708, 758 Private Cello
APMU 609, 659, 709, 759 Private Bass Viol

APMU 610, 660, 710, 760 Private Flute
APMU 611, 661, 711, 761 Private Clarinet
APMU 612, 662, 712, 762 Private Oboe
APMU 613, 663, 713, 763 Private Bassoon
APMU 614, 664, 714, 764 Private Saxophone
APMU 615, 665, 715, 765 Private Trumpet
APMU 616, 666, 716, 766 Private French Horn
APMU 617, 667, 717, 767 Private Trombone
APMU 618, 668, 718, 768 Private Euphonium
APMU 619, 669, 719, 769 Private Tuba
APMU 620, 670, 720, 770 Private Percussion
APMU 621, 671, 721, 771 Private Guitar
APMU 622, 672, 722, 772 Private Conducting

ARED: Art Education

Department of Art
College of Fine Arts

ARED 640 Curriculum Theory and Practice 3 cr.

This course consists of the study of theories about curriculum in a general sense and as it applies to art education. Students will explore curriculum building and assessment related to contemporary art education issues. MA students will consider a future art-teaching situation when designing curricula.

ARED 710 Teaching Art History 3 cr.

This course explores current theories and issues in the teaching of art history in schools. The emphasis is on the paradigm shifts that have occurred in the last ten years in the field of art history, the contrasts of these approaches with more traditional theories, as well as the implications of these changes for art teachers. The emergence of contemporary resources, such as virtual museums and galleries, will be explored. Development of lesson plans, a curricular unit, and assessment tools, incorporating art history and museum and/or gallery experiences are central to the course.

ARHI: Art History

Department of Art
College of Fine Arts

ARHI 507 Medieval Art 3 cr.

Art and architecture of Europe during Middle Ages, beginning with the study of Early Christian and Byzantine Art and with art of the Romanesque and Gothic periods.

ARHI 508 Italian Renaissance Art 3 cr.

Art History majors, by special arrangement. Covers span of Italian art from 1400s through 1850 and Mannerist movement. Special attention paid to great masters of the period.

ARHI 509 Baroque and Rococo Art 3 cr.

General survey of art from 1575 to 1775. Will include architecture, sculpture, painting, and other arts.

ARHI 581 Special Topics 3 cr.

ARHI 682 Graduate Seminar in Art History 3 cr.

Considers current topics and various periods of art addressed in recent literature. These may deal with new discoveries of newly published works, methodological approaches, ideological issues, and controversies in the field. The concentration will vary and will concentrate on one area for the entire semester, i.e., Asian Art or Medieval Art. Students will be required to research an issue and present their results in written form, as well as in an informal class lecture.

Prerequisite: Graduate standing and/or advanced art history major (undergraduate by permission of instructor).

ARHI 683 Graduate Seminar in Theory and Criticism 3 cr.

Introduces students to some of the most important theories shaping the world of visual art today. The course will not only contextualize these theories historically and culturally but also offer various opportunities of applying them.

*Indicates dual-listed class

ART: Art

Department of Art
College of Fine Arts

ART 525 Critical Practice 3 cr.

Assists advanced students to acquire art criticism concepts and skills. Through written discourse, students will engage in both the discourse of art making and contemporary theories.

Prerequisites: Graduate Status. Art majors only.

ART 557 Graduate Studio in Print Media 3-18 cr.

Exploration of print media from a conceptual and technical perspective, including traditional and nontraditional approaches. The student may concentrate on intensive exploration of one medium in depth or explore a number of media for breadth of experience. This course is designed for both beginning and advanced students. Prerequisite: Graduate art student standing.

ART 559 Graduate Studio in Fibers 3-18 cr.

Fundamentals of fiber construction and processes. Emphasis on experimental approaches to fiber design and construction. Designed to meet the needs of beginning as well as advanced students.

ART 560 Graduate Studio in Jewelry and Metals 3-18 cr.

Advanced study dealing with specialized problems in design and execution of metal work and jewelry. A thesis may be developed, depending on research in one of the areas relating to this field: history, materials, tools, processes, or teaching techniques of the craft.

ART 572 Graduate Studio in Ceramics 3-18 cr.

All aspects of hand forming, decorating, glazing, and firing will be dealt with. This may include body and glaze formulation and reduction, oxidation, salt, wood, and raku firing, as well as thrown, coiled, or slab construction or combinations thereof. Includes historic and contemporary ceramics and philosophies of the craft. Prerequisite: At least one year of undergraduate ceramics.

ART 573 Graduate Studio in Sculpture 3-18 cr.

An advanced course in which students are expected to work on challenging problems in sculpture. A student may explore one or several sculpture or modeling media.

ART 574 Graduate Studio in Oil Painting 3-18 cr.

Traditional and contemporary methods and techniques in the area of plastic painting media. Composition in relation to modern painters' problems. Opportunity is presented for exploration and specialization in depth as well as breadth.

ART 575 Graduate Studio in Drawing 3-18 cr.

Drawing as a language and continued development of skill in communication and expression in all kinds of materials and media. Drawing as an intimate work of the artist will be expressed.

ART 576 Graduate Studio in Woodworking 3-18 cr.

Specialized study and experiences in the design and execution of problems relating to wood as a crafts material. Opportunity is presented to more intensively explore materials and processes of this craft employing both hand and power tools.

ART 581 Special Topics 3 cr.

ART 610 Creative Inquiry: Visual Concepts 3 cr.

This core studio course will explore multi-disciplinary studio strategies of contemporary themes and concepts. Topics will examine important recurring issues that motivate current artistic practice beyond traditional media and genre. Students will investigate differing concepts and approaches through the student's chosen media toward developing a personal research direction.

ART 611 Creative Inquiry: Inter-Media Contexts 3 cr.

This core studio course will investigate contemporary practices in the use of hybrid or cross media approaches to create art. This course is intended to expand the student's notion of disciplinary ideas and strategies and reflect upon current professional practices that blends a variety of media or creates new hybrid forms of work that draw upon various disciplinary strategies.

ART 612 Expanded Drawing 3 cr.

This graduate-level studio course uses the media of drawing to explore the student's artistic concepts and research interests across two-dimensional, three-dimensional, and time-based media. Reflecting contemporary art practices, students will investigate expanded definitions of conventional drawing techniques relative to contemporary art and culture.

ART 615 Art Seminar 3 cr.

Opportunities for students to conduct in-depth explorations of contemporary trends/issues in Studio Art and to develop proficiency in the area of art criticism. Course content and methods will include writing, verbalization, group discussion, attendance at regional exhibitions, and development of thesis/exhibition proposals. For MA candidates only.

ART 620 Art and Visual Culture 3 cr.

Students will explore the historical influences and current research in visual studies and visual culture studies. Students will develop verbal and written responses to these subjects, and look to potential art-making strategies that integrate concepts related to visual culture.

ART 630 Critical Practice 3 cr.

Critical Practice is developed to assist graduate students to acquire art criticism concepts and skills. Through oral and written discourse, students will deepen their understanding of art. Students will increase their understanding and ability to engage in the critical process.

ART 680 Graduate Studio Critique 3 cr.

A multidisciplinary course for studio majors seeking the MA and MFA degrees. Selected studio faculty and all graduate students will meet weekly to critique work and projects in progress. Enables students with techniques for leading and participating in the group critique process as a vehicle for growth and understanding. Prerequisite: Graduate student standing.

ART 681 Special Topics 3 cr.**ART 698 Internship 3 cr.****ART 699 Independent Study 3 cr.****ART 740 MA Exhibition 3 cr.**

This course will provide a culminating experience to publicly exhibit and orally defend the student's MA Project. It is a practice-oriented course in professional practices, exhibition installation and curatorial practice.

ART 795 Thesis 3 cr.

Studio courses may be taken for a total of 18 semester hours in one studio. No more than six semester hours in one studio may be taken during one semester.

BIOL: Biology

Department of Biology

College of Natural Sciences and Mathematics

BIOL 501/* Fundamentals of Epidemiology 3 cr.

Introduces epidemiologic principles, concepts and methods used to study the distribution and determinants of diseases in populations. Includes public health and clinical applications. Topics includes the history of epidemiology, dynamics of disease transmission, measures of disease frequency and association, study designs, causation, and also consider ethics and public policy

issues in epidemiology. Prerequisites: BIOL 104 and 119, or BIOL 203; and MATH 216 or MATH 217; or instructor permission

BIOL 502 Advanced Human Anatomy 3 cr.

An intensive study of the gross anatomical structures and their functions within the human body. The course explores the organization and integration of the human body on a region by region basis. For each region of the body, students will observe all structures within that region simultaneously. This approach allows students to appreciate the integration of different biological systems within the body. Laboratory sessions will center on regional cadaver dissection by groups of students to appreciate 3-dimensional anatomical relationships. Prerequisite: Graduate student status or permission of instructor; not open to students who have successfully completed BIOL 150.

BIOL 505/* Biology of the Cell 3 cr.

Introduces students to the cellular and molecular mechanisms by which individual cells grow, receive and respond to internal and external signals, and move. The course will discuss the latest advances in the discipline, and the students will be expected to utilize the current literature on their own as a means of building critical thinking skills. The student-centered laboratory portion of the course will emphasize individual and group activities. Prerequisites: BIOL 111, CHEM 231, or permission of the instructor.

BIOL 509/* Pharmacology Principles and Applications 3 cr.

Explores the principles of the interactions of chemicals with biological systems in the context of human diseases of varied etiology (e.g. genetic, environmental) and clinical presentation. Introduces the general principles of pharmacokinetics and pharmacodynamics, integrating analysis at multiple biological levels (molecular, cellular, systems, organismal) to develop a broad view of the interaction of drugs with biological systems. Develops skills in pharmacological analysis through examination of actual and simulated sets of data. Examines applications of principles to specific fields of pharmacology (e.g. neuro-, cardiovascular, immuno-, endocrine, cancer) and explores the discovery and development of new medications using examples from recent scientific and clinical trial literature. Prerequisites: BIOL 106, 202, or 240

BIOL 525/* Herpetology 3 cr.

A comprehensive survey of the classes of Amphibia and Reptilia, including their classification, structure, origin, evolution, phylogenetic relationships, distribution, and natural history. Special emphasis is placed on the herpetofauna of Pennsylvania.

BIOL 531/* Ichthyology 3 cr.

Introduces the biology, taxonomy, natural history, and conservation of freshwater and marine fishes. Examines the morphological and physiological adaptations that have allowed fish, the most diverse group of vertebrates, to thrive across a wide array of environments throughout the globe. Lab emphasizes field collection and identification of fish found in Pennsylvania and the Great Lakes region, but select representatives from other families are also covered. Critically evaluates published scientific papers related to fish biology, physiology, and evolution. Prerequisite: BIOL 220 or permission of the instructor.

BIOL 550/* Pymatuning: Field Studies 3 cr.

During the summer session, various field courses are offered through the Pymatuning Laboratory of Ecology. The offerings will vary depending on the summer. Some of the possible offerings include Experimental Design, Fish Ecology, Behavioral Ecology, Aquatic Botany, and Ecological Genetics. Information regarding specific offerings is available from the Biology Department in spring.

BIOL 553/* Plant Physiology 3 cr.

Physiological processes occurring in plants are considered in relation to growth, development, and ecology of plants.

BIOL 555/* Animal Behavior 3 cr.

The biological study of animal behavior. Topics include the mechanisms, development, ecology, and evolution of behavior. Prerequisite: BIOL 220 or permission of the instructor.

BIOL 556/* Ecological Toxicology 3 cr.

A study of the impact of chemical pollutants and other stresses on nonhuman biological systems from the sub-cellular to ecosystem levels. An ecological risk assessment will be conducted in the field and laboratory settings. Prerequisites: One year Biology, one year Chemistry.

BIOL 562/* Vertebrate Endocrinology 3 cr.

Examines how hormones, or cell signaling molecules, are produced in specific endocrine tissues and alter the physiology of the respective target tissues.

BIOL 563/* Limnology 3 cr.

An investigation into the physical, chemical, and biological aspects of inland waters and their interrelationships. Saturday or Sunday labs may be required. Prerequisite: Ecology.

BIOL 564 Immunology 3 cr.

Study of anatomy and function of immune system, physical and chemical properties of antigens and antibodies, nature of antigen-antibody interactions, humoral and cell-mediated immune responses, and immunopathology. Prerequisites: Biochemistry and Microbiology.

BIOL 566/* Principles of Virology 3 cr.

Topics include structure, classification, assay, and transmission of animal, bacterial, and plant viruses; methods used in the study of viruses; viral replication, gene expression, and gene regulation; host-viral interactions and sub-viral pathogens.

BIOL 569/* Circadian Rhythms and Sleep 3 cr.

Introduces the functions and mechanisms of biological clocks and rhythms in humans and animals, focusing primarily on circadian, or daily, rhythms. Examines how biological clocks keep time and influence behavior and physiology from the molecular level. Explains how circadian rhythms control sleep-wake and other important neurological functions to optimize biological fitness. Explores the consequences of disrupted circadian timing on physical and psychological health and performance.

BIOL 571/* Dendrology of the Eastern U.S. 3 cr.

A field course that examines the taxonomy, morphology, and ecology of the tree species in the eastern portion of North America. The forests of Pennsylvania will be emphasized in the course.

BIOL 573/* Seedless Vascular Plants: Ferns and Allied Flora 3 cr.

A comprehensive survey of morphological and habitat characteristics of seedless vascular plants (generally ferns and their allies) of Pennsylvania and the surrounding states. Prerequisite: BIOL 210.

BIOL 579/* Neurobiology of Addiction 3 cr.

Examines the biological foundations of addiction, with special emphasis on cellular and molecular mechanisms. Studies: 1) the effects of a wide range of drugs of abuse on brain function, 2) the neural circuitry of addiction, 3) the neurobiological influence of genes and environment on drug taking, and 4) the biological basis for traits linked to drug use, such as personality, memory, and mood. Discusses how cutting-edge biological methods are answering key questions about addiction and how the results of such research can be used to improve clinical treatment.

BIOL 590 Field Studies in Biology 3 cr.

Various specialized field courses instructed by biologists from IUP. In this course, students will explore the rich diversity and ecology of the flora and fauna that inhabit specialized regions of Pennsylvania, the United States, or other countries. Special emphasis will be placed on the ecology, behavior, and natural history of organisms in their natural surroundings. Students should be prepared to meet travel and living expenses. May be taken more than once for credit and grade if content of course is different.

BIOL 474/574 Spring Flora of the Northeastern U.S. 3 cr.

An in-depth survey of the emerging herbaceous spring flora in the northeastern portion of North America (with emphasis on the herbaceous plants of Pennsylvania). Classes will focus on readings of current research in botanical and scientific journals conveyed through student led discussions. Field identification of representative individuals by common and generic names is also covered.

Prerequisite: BIOL 210 or permission of instructor

BIOL 575/* Mammalogy 3 cr.

General discussion of mammals, emphasizing systematics, distribution, and structure-function modifications related to their evolution. A paper is required.

BIOL 576/* Parasitology 3 cr.

The parasitic protozoa, flatworms and roundworms. Major emphasis is on species infesting man and includes their structure, physiology, ecology, life cycles, and pathogenicity. Arthropods involved in parasite transmission included. Prerequisites: One year Biology, Vertebrate and Invertebrate Zoology.

BIOL 577/* Neurobiology 3 cr.

Presents the underlying mechanisms through which the nervous system mediates behavior, from the molecular to the organismal level. Emphasizes two major themes: 1) the roles of synapses and neuronal excitability in shaping the input/output functions of neurons and neuronal networks, and 2) the role of neuronal development and neuronal experience upon resultant neuronal organization. Prerequisite: BIOL 111 or 105 or 151; or PSYC 350; or permission of instructor.

BIOL 581 Special Topics 3 cr.**BIOL 602 Biometry 3 cr.**

The choice and application of standard, efficient, practical, and appropriate statistical techniques for data analyses in common biological situations. Computer instruction emphasizes the practical application of statistical techniques using statistical packages on microcomputers and the IUP mainframe computer. Lecture and computer instruction will be combined in four class hours per week.

BIOL 603 Advanced Techniques in Biology 1-3 cr.

Introduction to advanced techniques and procedures used in biological research. Topics vary. Prerequisite: Permission.

BIOL 608 Biology Teaching Practicum 3 cr.

This course will provide a field experience observing and teaching in certification-related settings at the secondary level in a public school, private school, or other education setting serving students in grades 7-12 for a minimum of 120 hours. It includes coordination and supervision by a qualified university faculty member with daily supervision by a cooperating classroom teacher or program supervisor. It also includes a minimum of 20 hours of observation in one or more college or university Biology classrooms with permission of the instructor, giving graduate students the opportunity to observe practical teaching and management strategies for higher education settings. Prerequisite: Permission of Biology Education Coordinator and Graduate Coordinator.

BIOL 611 Biology Seminar I 1 cr.

Develops essential skills for the professional biologist, including public presentation of biological information and the ability to critique biological data and ideas.

BIOL 612 Biology Seminar II 1 cr.

Develops essential skills for the professional biologist, including writing of research proposals and presentation of seminars. Prerequisite: BIOL 611.

BIOL 621 Biology of Animal Taxonomy 3 cr.

Study of classification system and its application to identification of animals. Basic principles of taxonomy rules of nomenclature, a synoptic history of classification, and the “old” and “new” taxonomy rules will be included. A taxonomic field study is required.

BIOL 622 Advanced Ornithology 3 cr.

A detailed study of bird populations, behavior, and movement, including the annual cycle. Prerequisite: Ability to identify local birds visually and by their songs.

BIOL 623 Animal Morphogenesis 3 cr.

Factors that influence and control the differentiation of organs, tissues, and cells. Emphasis placed on experimental procedures and methods. Prerequisites: Embryology or Comparative Anatomy, Organic Chemistry, and Genetics.

BIOL 624 Advanced Entomology 3 cr.

Insect morphology, including external and internal organization of different species of insects. Comparisons between species included. An independent research study and seminar presentation required.

BIOL 631 Plant Ecology 3 cr.

Nature and distribution of vegetation in relation to environmental factors. Field investigations of local plant communities constitute bulk of lab work. Prerequisites: Field Botany, Plant Taxonomy, or general knowledge of local flora.

BIOL 640 Animal Ecology 3 cr.

Effect of environmental factors on animals; animals as members of communities, their trophic relationships, their ecological distribution and population dynamics; and aspects of animal behavior. A field or lab problem is required.

BIOL 641 Population and Community Ecology 3 cr.

The ecology of animal and plant populations, including the study of life tables and demography, population growth and regulation, and the evolution of life history traits. Community ecology considers the interactions among populations such as competition, predation, and mutualism and how such interactions control the composition of a community. Prerequisite: Introductory course in ecology or permission of instructor.

BIOL 645 Behavioral Ecology 3 cr.

A consideration of the behavioral activities of animals in their natural habitats. Evolutionary and ecological implications of behavior will be stressed. Topics include natural history strategies, resource partitioning, reproduction strategies, sexual selection, cooperation, conflict, and social organization.

BIOL 650 Plant Systematics 3 cr.

Introduces students to history, theory, literature, sources, and interpretation of plant systematic data and to methods of plant collection and identification.

BIOL 651 Physiological Ecology of Animals 3 cr.

A consideration of physiological responses of animals to environmental variables with emphasis on the evolutionary aspects of the response. The physiology of invertebrates and vertebrates in aquatic and terrestrial environments will be considered. Prerequisite: A course in physiology or permission of the instructor.

BIOL 653 Animal Physiology 4 cr.

Digestion and molecular transport of nutrients, gaseous exchanges, excretion, muscular activity and control, and endocrine and neural elements. Prerequisite: Animal Biology.

BIOL 662 Molecular Genetics of Eukaryotes 3 cr.

Study of organization and chemical structure of genes in relation to molecular function and evolution. Emphasis will be placed on the genetic systems of eukaryotes and their viruses. Prerequisites: Genetics, Organic Chemistry, and Biochemistry or permission of the instructor.

BIOL 664 Pathogenic Microbiology 3 cr.

Study of disease caused by microorganisms with emphasis on human pathogens. Both epidemiology and aspects of host-parasite relationships. Lab stresses methods of isolation and identification of pathogens. Prerequisite: Microbiology.

BIOL 681 Special Topics 1-3 cr.

Advanced topics in biology. Prerequisite: Permission of instructor.

BIOL 699 Independent Studies 1-3 cr.

Individual or small group instruction, by tutorial and intensive literature survey, in a particular area not covered by a student's course work or thesis research. By arrangement with instructor and approval of graduate director. Maximum of six hours to be used toward the degree.

BIOL 795 Thesis 2-6 cr.

NOTE: Summer courses offered at the Pymatuning Laboratory of Ecology may be taken for biology elective credit.

*Indicates dual-listed class

BLAW: Business Law

Department of Finance and Legal Studies
Eberly College of Business and Information Technology

BLAW 541 The Law of Property Oil and Gas Leasing I 3 cr.

Designed to give students an understanding of fundamental energy law including oil and gas law. Includes analysis of natural resource leases and contracts, rights and ownership of the mineral estate, Law of Capture, contracts, clauses and covenants of the oil and gas lease, oil and gas operating agreements, title and conveyance of oil and gas leases, pooling and utilization on private and federal lands, easements and right of ways in connection with natural resource exploration, environmental considerations and impacts of natural resource drilling and exploration, the legal structure of the energy industry, (Public Utility Holding Company Act, Federal Energy Regulatory Commission) land use restrictions and eminent domain. Prerequisites: BLAW 633 (Graduate)

BLAW 542 The Law of Property Oil and Gas Leasing II 3 cr

Second legal course in the energy/oil and gas sequence and will build upon and advance concepts from the first course. Specifically geared toward the sophisticated legal understanding

required to be employed as "landman" in the oil and gas fields. Covers these topics: the Habendum Clause, the drilling and rental clause, dry hole, cessation of production, and drilling operation provisions, delayed rental and bonus provisions, forfeiture and related provisions, implied covenants, Prudent operator standard, implied drilling covenants, protection covenants, development, marketing and reasonable care covenants, assignments of royalties, royalty calculation under various state laws, drilling and operating agreements, assignment of working interest, pooling and utilization issues and problems, oil and gas forms and leases, lien subrogation rights, environmental impacts from drilling standpoint and landowner standpoint. Industry guest speakers may also address these issues. Prerequisites: BLAW 633 and BLAW 541.

BLAW 581 Special Topics in Business Law 1-3 cr.

Covers advanced or exploratory topics within the discipline. Specific content developed by the instructor. Content will vary, depending upon the interests of the instructor and students' need and demand for the advanced or exploratory topic. Prerequisite: Permission of the instructor and the Eberly College of Business and Information Technology graduate coordinator.

BLAW 633 Case Problems in Business Law 3 cr.

Deals with solution of case problems as applied to various topics in the field of business law. Prerequisite: BLAW 235 or equivalent.

BTED: Business Technology Education

Department of Information Systems and Decision Sciences
Eberly College of Business and Information Technology

BTED 511 Methods in Business and Information Technology I

Change from BTED 690- Clinical Studies in Business Education to BTED 511- Methods in Business and Information Technology I (dual listed with BTED 411)

BTED 512 Methods in Business and Information Technology II

Change from BTED 693- Seminar in Teaching Business Subject to BTED 512- Methods in Business and Information Technology II (dual listed with BTED 412)

BTED 570/* Technology Applications for Education 3 cr.

Provides a prospective business educator with concepts, applications, and methodologies needed to be effective in today's classroom including advanced web page coding, advanced computer applications, creation of an inquiry-oriented activity in which the information that learners interact with comes from Internet resources, and a learned society's rules for records management. Also, includes instruction in the pedagogy of computer applications. The end product will be additions to students' e-portfolios.

BTED 581 Special Topics 3 cr.

BTED/VOED 600 Curriculum Development in Career and Technical Education 3 cr.

Emphasis is on processes for making curriculum decisions and guiding others in developing and updating curriculum for career and technical education. Current occupational standards and

societal needs, as well as state and federal regulations governing career and technical education, are used as a basis for curriculum decisions.

BTED/VOED 601 Curriculum and Instructional Leadership in Career and Technical Education 3 cr.

Curriculum management skills are developed and utilized to plan and organize career and technical educational curriculum. Focus is on practical curriculum decisions when they involve guiding other staff in curriculum development for career and technical education.

BTED/VOED 602 Conference Leadership and Communication Methods in Career and Technical Education 3 cr.

Basic concepts in supervision of career and technical education programs are reviewed. Human relations, communications, processes, decision making, helping conferences, and leadership strategies are emphasized. Students demonstrate ability to perform supervisory skills in an individualized manner in an actual career and technical school situation supplemented by seminars.

BTED/VOED 603 Management of Instruction for Career and Technical Education 3 cr.

Classroom instructional tasks performed by the career and technical educator are studied, including procedures, materials, and learning and instructional styles. Emphasis is on leadership strategies and processes to guide and assist other career and technical instructors. Skills are developed in an individualized, self-paced manner in an actual career and technical school situation supplemented by seminars.

BTED/VOED 604 Curriculum Supervision in Career and Technical Education 3 cr.

Emphasizes skills needed to provide leadership in supervision of faculty and staff. In consultation with his or her advisor, each student identifies areas that need enhancement in career and technical education settings. Skills are developed in an individualized, self-paced manner in an actual career and technical school situation supplemented by seminars.

BTED/VOED 605 Policy Administration 3 cr.

Develops skills to communicate career and technical school policies and activities effectively with staff, students, and community. Includes study of student recruitment for career and technical programs and maintenance/expansion/utilization of school facilities. In consultation with his or her advisor, each student will identify those areas that need further refinement. The student will develop and perform each requisite skill in an individualized, self-paced manner in an actual career and technical school situation supplemented by seminars.

BTED/VOED 606 Leadership for Career and Technical Educators 3 cr.

Provides a broad overview of educational leadership in secondary public school settings, including leadership styles; staff selection, evaluation, and supervision; and team building. Also includes principles of curriculum development, instructional scheduling, and instructional technology, teaching skills, and learning theories.

BTED/VOED 607 Organizations and Structure for Career and Technical Education 3 cr.

Provides a broad overview of current issues faced by school and district leaders, including the

need to effectively communicate with parents, staff, students, community leaders, and community members from diverse backgrounds. Also includes principles of schools as organizations, the nature of administrative work, leadership and the change process, and current issues facing schools.

BTED/VOED 608 Legal and Legislative Issues in Career and Technical Education 3 cr.

Provides an understanding of the current legal and legislative issues that exist in the implementation of career and technical education.

BTED/COMM 609 Innovations in E-Learning 3 cr.

Students discover the latest developments in e-learning and reflect on how they are changing relationships between teachers and technology. The course invites questions as to what constitutes e-learning and why some technological innovations are adopted more readily than others. Hands-on experiences of new communication technologies and an understanding of their effects on teaching and learning practices are integrated throughout the course.

BTED 690 Clinical Studies in Business Education 3 cr.

Examines the historical and philosophical perspectives of business and technology education. Includes observations of classes at the secondary, community college, and industry training levels. Interviews of staff in educational settings will be included to provide in-depth information on trends in business and technology education.

BTED 693 Seminar in Teaching Business Subjects 3 cr.

Includes instruction in the methods of teaching and evaluating both the technology-oriented and cognitive-related courses in business education. Emphasis is placed on planning instruction, developing methods and strategies for making effective classroom presentations, delivering instruction, and managing the classroom. Opportunities will be provided to undertake the responsibilities assigned to the business classroom teacher, assume the teaching role competencies, and research current trends in the field.

BTED 695 Professional Semester-Student Teaching 12 cr.

Provides experience in teaching at the secondary level in a business education program and coordination and visitation by a university faculty member with supervision by a cooperating teacher. Efforts are made to provide opportunities to work with students who have special needs and/or who come from diverse cultural backgrounds. Students enrolling in BTED 695 must meet all requirements for admission to Teacher Certification.

BTED 699 Independent Study in Business Education 1-3 cr.

Individual research and analysis of contemporary problems and issues in a concentrated area of study under the guidance of a senior faculty member. Prerequisite: Consent of instructor, departmental chairperson, and Eberly College of Business and Information Technology dean.

*Indicates dual-listed class

BTST: Business Technology Support and Training

Department of Information Systems and Decision Sciences
Eberly College of Business and Information Technology

BTST 542/* Training Methods in Business and Information Technology Support 3 cr.

Includes the application of theories of adult learning to planning, delivering, and evaluating training for education and information technology. Major emphasis is placed on the planning of instruction, classroom management, evaluation and follow-up methods, and evaluation of training strategies.

BTST 581 Special Topics in Business Technology 1-3 cr.

Covers advanced or exploratory topics within the discipline. Specific content is developed by the instructor. Content will vary, depending upon the interests of the instructor and the students' need and demand for the advanced or exploratory topic. Prerequisite: Permission of instructor and Eberly College of Business and Information Technology graduate coordinator.

BTST 614 Instructional Computing Basics 3 cr.

Introduces students to the practical use of the computer as a tool for enhancing effectiveness and efficiency in teaching/learning and training and development. Learners explore the use of the computer in school and nonschool teaching or training and development settings, conduct critical evaluation of computer-based instructional/training materials, and develop strategies for integrating computing into the total teaching/training and development environment. Current research in the area of instructional computing and its practical implications for teaching and training and development are also discussed.

BTST 631 Interactive Multimedia 3 cr.

Provides an introduction to designing and producing computer-generated multimedia presentations and courseware for industry and education. Prerequisite: BTST 614 or permission of the instructor.

BTST 642 Training with Technology 3 cr.

Occupations are analyzed, needs are assessed, and strategies are developed for designing training in high-technology settings. In-depth discovery and use of training technologies will be experienced. Development of course objectives, training outlines, and use of cutting-edge technological delivery techniques will be addressed. Prerequisite: BTST 542

BTST/IFMG 644 IT Policy and Strategy 3 cr.

Investigates strategic perspectives for aligning competitive strategy, core competencies, and information systems. Students will study the development and implementation of policies and plans to achieve organizational goals. They will also define the systems that support the operational, administrative, and strategic needs of the organization, its business units, and individual employees. Students will study and apply different approaches to managing the information systems function in organizations, including examination of the dual challenges of effectively controlling the use of well-established information technologies. Students will also study the different roles of the chief information officer.

BTST 650 Issues and Trends in Business/Workforce Development 3 cr.

Utilizing state-of-the-art technology, explores current issues and trends in business and technology education. Topics include the integration of technology in the classroom and trends in educational initiatives. Participants have an opportunity to use the Internet as a research tool, a high-tech workstation, and the latest presentation software.

BTST 655 Emerging Information Technologies 3 cr.

Provides participants with up-to-date experience in areas of rapidly changing technology in end-user environments. Focuses on topics of particular interest to Information Technology Support professionals and resource management techniques applied to business situations. Participants will be provided with up-to-date experience in integrating new technologies into the enterprise. Areas of concentration include software solutions and hardware environments.

BTST 656 Applied Research in Business/Workforce Development 3 cr.

An examination of methods and techniques of research in office systems and business education. Students select a research topic and conduct an actual study on an individualized basis or as part of a small group. A formal research report is an end product of the course. Prerequisite: GSR 615.

BTST/IFMG 663 Project Management for Information Technology Professionals 3 cr.

Investigates strategies for managing projects within an organizational context, including the processes related to initiating, planning, executing, controlling, reporting, and closing a project. Students will study project integration, scope, time, cost, quality control, and risk management. Students will identify project champions and will work with user teams, training, and documentation. Students will also investigate the role of the information systems specialist.

BTST 665 Information Security in the Enterprise 3 cr.

Provides a broad overview of the threats to the security of information systems, with emphasis on the tools for information security and areas of training and emphasis needed in organizations to reach and maintain a state of acceptable security.

BCOM 670 Organizational Behavior and Communication 3 cr.

Designed to expose graduate students to organizational communication approaches, perspectives and practices, students in this course will examine and apply organizational theories aimed at understanding and analyzing human behavior in complex, global organizations. Emphasis will be on active learning, as students blend classical theory and modern practice when employing advanced communication techniques in areas including executive leadership, cross-cultural communication, team building, group motivation, ethics, conflict management, and emerging communication technology influences in global environments.

BTST 675 Web Design Theory and Application 3 cr.

Emphasis on the integration of research and the creation of websites to support users' information needs. Covers research strategies, website design, implementation, and evaluation.

BTST 680 Technical Update 1-3 cr.

Designed to provide students with up-to-date experiences in areas of rapidly changing

technology. Offerings focus on topics of particular interest to business teachers in high-technology settings.

BTST 681 Special Topics 3 cr.

BTST/IFMG 682 Integrating the Enterprise, IS Function, and Technologies 3 cr.

Investigates the information systems role in transforming organizations and industries. Students study an integrated view of the organization from an external and internal perspective. Students will also study IS's internal role in integrating the enterprise through a cohesive set of business processes and functional applications to meet business needs. Students will discuss the tactical/operational responsibilities and roles of the chief information officer and governance considerations that link the IS-business organizations. Students will study the current/emerging issues in creating and coordinating the key activities necessary to manage the day-to-day operations of the IS function. Students will also study the development of an integrated technical architecture to serve organizational needs in a rapidly changing competitive and technological environment.

BTST 698 MBA Internship 1.5 cr. or 3 cr.

A planned, field-based, individually designed, and faculty-supervised work-experience to enhance the student's professional competence in Business Administration and selected functional area. Maximum of 3 credits can be applied towards MBA electives. Prerequisites: Completion of 15 graduate credits and approval of department chair and graduate coordinator.

BTST 699 Independent Study in Business 1-3 cr.

Individual research and analysis of contemporary problems and issues in a concentrated area of study under the guidance of a senior faculty member. Prerequisite: Consent of instructor, departmental chairperson, and Eberly College of Business and Information Technology dean.

BTST 795 Thesis 1-3 cr.

*Indicates dual-listed class

CDFR: Child Development and Family Relations

Department of Human Development and Environmental Studies
College of Health and Human Services

CDFR 510 Infant and Toddler Development 3 cr.

Study of characteristic development changes of human infants and toddlers from birth to approximately 36 months. Participation as teacher assistant in the infant/toddler childcare center provides experience in developmentally appropriate guidance and programming for very young children.

CDFR 525*: Adolescence: Risk and Resiliency

Focuses on growth and development of adolescents, parenting of adolescents and adolescents as parents. Special emphasis is given to identifying risks and resiliency factors when working with

adolescents and families in the field of human services. A variety of human development theories are examined in an attempt to understand from both an individual and societal point of view. Prerequisites: None

CDFR 526* Techniques of Parent Education 3 cr.

Examination of the nature, extent, and significance of parent education and parent involvement. Students will become knowledgeable of the diverse and complex characteristics and needs of families. The course will enable students to identify the interrelationships of home, school, and community agencies to enhance collaboration and cooperation. Students will identify methods, programs, and curricula to increase communication with parents and families. Prerequisites: None.

CDFR 527* Administration of Child Development Centers 3 cr.

Development of special knowledge and competencies needed by successful administrators of child care programs, including proposal writing, budgeting and management, staff selections and training, appropriate curriculum material and philosophy, parent involvement, child advocacy, and program evaluation. Prerequisite: None

CDFR 581 Special Topics 3 cr.

*Indicates dual-listed class

CHEM: Chemistry

Department of Chemistry

College of Natural Sciences and Mathematics

BIOC 502/* Advanced Biochemistry 3 cr.

An examination of biochemical processes with a focus on metabolism. Central pathways are considered in detail, including regulatory mechanisms and hormonal signaling. Other selected processes and integration of mammalian metabolism are explored. Assumes an understanding of concepts relating to structure/function relationships for biomolecules, biological membranes, and signaling included in BIOC 301. Prerequisite: Instructor permission (credit for an undergraduate course in biochemistry is required).

CHEM 500 Special Studies 1-6 cr.

Intensive survey of literature in a particular area as well as individual instruction on recent advances in chemical instrumentation, methods of research, and specialized subject areas. To be arranged with instructor.

CHEM 511/* Advanced Inorganic Chemistry 3 cr.

Discussion of advanced theories of atomic structure, chemical bonding, acids and bases, coordination compounds, and selected topics. In the laboratory portion of the course, techniques used in the synthesis and characterization of inorganic compounds are explored. Prerequisites: CHEM 214, 341 or graduate standing

CHEM 521/* Advanced Instrumental Methods of Analysis 3 cr.

Modern instrumental analysis, including electrical, spectrophotometric, x-rays, gas chromatography, and other methods. Four-hour lecture/laboratory.

CHEM 531/* Organic Molecular Structure Determination 3 cr.

Gives student experience in systematic identification of various classes of organic compounds by both chemical and physical methods. Four-hour lecture/laboratory.

CHEM 535/* Current Topics in Organic Chemistry 3 cr.

With selections to meet the needs of the students, possible topics may include reaction mechanisms, molecular spectroscopy, stereochemistry, natural products, heterocyclics, polymer chemistry, and organic synthesis.

CHEM 542/* Advanced Physical Chemistry 3 cr.

An introduction to spectroscopy and molecular structure. Lecture—three hours.

CHEM 560/* Chemistry and Physics of Materials 3 cr.

Provides unified treatment of materials. Emphasizes physical and chemical origins of material properties. Multidisciplinary approach using chemistry, physics, and geoscience to study bonding and crystal chemistry. Provides an interdisciplinary approach to the study of material phenomena involving electronic devices, energy storage, second harmonic generation, superconductivity and others. Prerequisites: CHEM 111 or 114 and PHYS 112 or 132.

CHEM 561/* Modern Diffraction 3 cr.

Investigates advances in crystallography and its applications to modern science. Emphasizes powder diffraction, including Rietveld analysis. Develops proficiency in data collection, phase analysis and structure refinement and shows how crystallographic science can address scientific problems.

Prerequisites: CHEM 112 or 114 and PHYS 112 or 132.

CHEM 581 Special Topics 3 cr.

CHEM 600 Seminar 1 cr.

A study of modern chemical research and research techniques. Scientific communication, including the role of the science laboratory in research. The student will present one oral report. Lecture—one hour.

CHEM 610 Inorganic Chemistry (core course) 3 cr.

Theoretical inorganic chemistry and, in particular, structure, periodicity, coordination chemistry, bonding, and chemistry of non-aqueous solvents. Lecture—three hours.

CHEM 620 Analytical Chemistry (core course) 3 cr.

Theoretical principles of analytical chemistry. Lecture—three hours.

CHEM 623 Physical and Chemical Methods of Separation 3 cr.

Application of chromatographic methods to the quantitative separation and analysis of chemical

systems. Topics will include gas, column, paper and ion exchange chromatographic methods, and other methods of separation as time permits. Lecture—2 hours; laboratory—4 hours.

CHEM 630 Organic Chemistry (core course) 3 cr.

Principles of physical chemistry will be applied to the study of organic reaction mechanisms. Lecture—three hours.

CHEM 646 Biochemistry 3 cr.

Topics covering and emphasizing most recent developments in the areas of biochemistry, such as amino acids, carbohydrates, lipids, nucleic acids, proteins, enzymes, metabolism, and metabolic control. Lecture—three hours.

CHEM 681 Special Topics 3 cr.

CHEM 690 Research 1-6 cr.

Laboratory and literature investigation of student's thesis problem, done under the direction of a faculty member. Within the first 15 hours of course work, the student must schedule at least one credit of research for which the student performs the literature review and writes a research proposal.

CHEM 699 Independent Study 1-6 cr.

Available to students who seek to deepen their knowledge in some specific aspect of chemistry. The student must discuss the nature of the independent study with a faculty member having expertise in the area prior to registration. Special attention to development of new ideas and new ways of presenting scientific principles.

CHEM 795 Thesis 4 cr.

For students writing the thesis. Should be scheduled for the semester in which the student plans to complete work. A committee thesis (four semester hours), for which the student's advisor, two additional faculty members, and the dean of the College of Natural Sciences and Mathematics constitute the committee.

*Indicates dual-listed class

COMM: Communications Media

Department of Communications Media
College of Education and Communications

COMM 503 Scriptwriting 3 cr.

Provides an introduction to scriptwriting for films and filmstrips. Various styles and techniques of writing will be analyzed, and each student is expected to experiment with the techniques presented. Emphasis on writing and in-class criticism of student script.

COMM 508/* Media Field Studies 3 cr.

A hands-on course designed to help students learn about the production process involving on-location production. The course will have three distinct phases. Students begin with research and

pre-production tasks on campus, travel to an off-campus site to collect additional information and images, and use those images to complete a production. Students are responsible for travel expenses.

Prerequisite: Permission from the instructor.

COMM 511 Theories & Principles of Strategic Communication 3 cr.

Provides students a solid foundation of the study of strategic communication with emphasis on organizational communication theories, strategic storytelling, participatory media, and online media's impact on behaviors and attitudes. Students will learn key elements of the field, analyze and evaluate messages for their strategic communication effectiveness and create and present examples of Strategic Communication in written and oral presentations. This course will provide an overview of discipline specific applications of strategic communication.

COMM 512 Writing for Strategic Communication 3 cr.

Prepares students to write goal-driven messages aimed at promoting action across a wide range of media platforms. Students evaluate and write strategic communications documents for communication platforms including in-person, online and on-air.

COMM 513 Multimedia Content Development and Production 3 cr.

Focuses on the planning, development, and production of multimedia for strategic communication. Particular focus is placed on both the function and promotion of interactions between developer and the target audience with the goal of creating media that both provide content and motivate and equip audiences to respond with user-generated content.

COMM 549 Basic Audio Recording 3 cr.

Theory and practices of recording sound and developing an understanding of language of sound recording and the ability to make sound recordings. Exposure to recording for various media, including radio, music, motion pictures, television, multi-image, and slide and tape production. Students will gain hands-on experience through labs and projects to be completed outside class.

COMM 571 Beginning Photography 3 cr.

Emphasis on using still picture camera and the darkroom for instructional purposes, the making of black-and-white negatives, 35mm slides, copy work, developing black-and-white, contact printing, and enlarging. Each student must have manual focusing and manual exposure setting capability. No previous photographic experience is necessary.

COMM 572 Photography II: Print 3 cr.

Helps students develop their camera and printmaking skills to the extent that they can employ those processes to communicate an intended message with their photographs. Students explore the characteristics and uses of a variety of films. They learn several skills, such as copy work, basic techniques of portrait lighting, and altering film development to suit high- or low-contrast subjects. Prerequisite: COMM 571 with a minimum grade of C.

COMM 581 Special Topics 3 cr.

Advanced topics, offered on an experimental basis, within the discipline of communications but not dealt with in other courses. Prerequisite: Permission of the instructor.

COMM 590 Improving Professional Practice in Instructional Settings 1-3 cr.

and

COMM 591 Improving Professional Practice in Instructional Settings 1-3 cr.

Reviews current research in instructional practices, motivational techniques, and professional issues. The course may focus on any of these aspects of teaching, learning, or professional practice. In addition, the course may be presented with a kindergarten through grade twelve, elementary, middle school, secondary, or adult orientation. This course is offered only for continuous professional development and may not be applied toward a graduate degree.

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

COMM 600 Instructional Design and Development 3 cr.

Examines the systems approach for the design, development, and evaluation of instructional material (print, video, multimedia, etc.). Students learn about the history of instructional technology and its current applications. Each student produces a self-instructional prototype which requires the student to systematically and creatively apply the concepts and rules learned in the class.

COMM 601 Media Production 3 cr.

Students learn how to systematically plan, produce, use, and evaluate media. Each student produces different types of messages (motivational, informational, and instructional), using a variety of media.

BTED/COMM 609 Innovations in E-Learning 3 cr.

Students discover the latest developments in e-learning and reflect on how they are changing relationships between teachers and technology. The course invites questions as to what constitutes e-learning and why some technological innovations are adopted more readily than others. Hands-on experiences of new communication technologies and an understanding of their effects on teaching and learning practices are integrated throughout the course.

COMM 611 The Strategic Communicator 3 cr.

Prepares students to become strategic communicators. Students will be engaged in content about interpersonal communication, group dynamics, problem-solving, and conflict resolution to become effective strategic communicators in the field. Course content will help students identify challenges, develop solutions and use appropriate presentation techniques to solve organizational problems.

COMM 612 Persuasion 3 cr.

Introduces students to the theories and practices involved in understanding the creation of persuasive messages, or messages intended to influence attitudes, behaviors, and opinions through all forms of media and interpersonal discussion. This course will look at how people process persuasive messages and the subsequent effects of these messages. This course will explore theories of persuasion, attitude change, and message design that can be used for message creation.

COMM 613 Strategic Communication and Online Media Campaigns 3 cr.

The course will require students to study successful and unsuccessful campaigns of the past. Students will then plan and develop a media campaign that is strategically targeted to a narrow audience and delivered and promoted via online media. Prerequisite: COMM 513.

COMM 614 Instructional Computing Basics 3 cr.

Introduces students to the practical use of the computer as a tool for enhancing effectiveness and efficiency in teaching/learning and training and development. Learners explore the use of the computer in school and nonschool teaching or training and development settings, conduct critical evaluation of computer-based instructional/training materials, and develop strategies for integrating computing into the total teaching/training and development environment. Current research in the area of instructional computing and its practical implications for teaching and training and development are also discussed.

COMM 631 Interactive Multimedia 3 cr.

Provides an introduction to designing and producing computer-generated multimedia presentations and courseware for industry and education. Prerequisite: COMM 614 or permission of the instructor.

COMM 681 Special Topics 3 cr.

Intensive study of a specific area of communications beyond the scope of other courses. Offering depends upon instructor and student interest. Prerequisite: Permission of the instructor.

COMM 698 Internship 2-6 cr.

Supervised professional work experience in communications media. Location, duties, length of internship, and hours are individually tailored to student career goals. Sites represent wide application of process and technology of communications in business, education, allied health, or other agencies.

COMM 699 Independent Study 1-3 cr.

The student may elect, with approval of advisor, to do several different independent study projects. University facilities and equipment are provided, but student must supply materials and pay for processing and production costs. Prerequisites: Successful completion of the basic course in the medium selected; the professor's approval.

COMM 712 Global Strategic Communication 3 cr.

Exposes students to the complexities of strategic communication for global organizations, with an emphasis on leadership and management of communication. Students will be engaged in research, discussion and writing to gain an understanding of how organizations develop information for a multicultural and global audience, both internally and externally. Includes analysis of ethical, legal, political and social communication issues around the globe. Skills and practices learned in this course will be transferable to multiple contexts of globally-oriented communication.

COMM 713 Advanced Strategic Communication Writing and Production 3 cr.

Prepares students to write and produce strategic messages at the professional level and to meet

the needs of employers in internships and careers. Using theory, research, writing and production concepts from previous coursework, students will be engaged in the purposeful creation of strategic communication products that meet the needs of organizations and audiences. This advanced, project-driven, course provides a culminating experience for students in the applied track of the Master of Science in Strategic Communication. Prerequisite: COMM 512, 513

COMM 714/814 Crisis Communication 3 cr.

Explores the challenges of communication during crisis situations and emphasizes the practical and theoretical applications of communication strategies used by companies, organizations, and governmental bodies during headline-grabbing crises. The course focuses on the issues relevant to planning, developing, and executing of crisis communications plans. Students will explore communication and media relations techniques for communicating with stakeholders during a crisis. Cases discussed will examine crisis situations in business, political, educational, and non-profit settings.

Co-requisite: COMM 801 or permission of instructor

COMM 715 Research Development in Strategic Communication 3 cr.

Prepares students to plan, research, and compose a Master's thesis in Strategic Communication. Students will learn and apply skills in research design, philosophies of research, and methodological selection. Also includes strategies for data collection and generation, defining concepts, report design, as well as institutional procedures and policies. Prerequisite: COMM 511, 512, GSR 615.

COMM 720 Political Communication 3 cr.

Provide students with a survey of communications role in politics and the political process. An interdisciplinary exploration of the field will explore the role of communication in and through legislative processes and outcomes, political campaigns and debate, news media, civic engagement, public opinion, political discourse and political identity construction.

COMM 781 Special Topics

COMM 793 Internship 6 cr.

Provides for a summer experiential education experience in a professional setting. This faculty-supervised experience may include placement at approved academic, business, non-profit, governmental or other organizations in a department or area related to the goals of the MS in Strategic Communication. Students will complete 240 work hours for this six credit culminating experience. Prerequisite: COMM 713, Departmental approval.

COMM 795 Thesis 6 cr.

Prepares students to write goal-driven messages aimed at promoting action across a wide range of media platforms. Students evaluate and write strategic communications documents for communication platforms including in-person, online and on-air. Prerequisite: COMM 715, Departmental approval.

COMM 800 Communication Research Statistics 3 cr.

Designed to prepare doctoral students to interpret and conduct quantitative data analysis in communications and instructional technologies. Students will learn to perform the statistical analysis common to the field of communications and understand the derivation, application and limitations of specific statistical tests. They will also analyze and critique the use of statistics in research published in the discipline. Topics addressed include data management, descriptive and inferential statistics, correlation and factor analysis.

COMM 801 Ideas That Shape Media 3 cr.

Provides a detailed analysis of prevailing theories of media, cultural influences, and communication. Students read milestone research, discuss the impact that culture and media have on each other, and analyze how technology, technique, and culture collide to create various forms of communication. The course also focuses on trends in Communications Media and Instructional Technology.

COMM 812 Media Ethics 3 cr.

Analyzes ethical problems, using established theories, research, and personal insights. Discussions focus on ethics within the communications media and instructional technology field. Students will complete research and case study activities that require them to provide possible solutions to ethical problems in the field.

COMM 815 Teaching Communications Media 3 cr.

Focuses on helping students to understand the unique challenges of teaching communications media courses in higher education and to improve their teaching via use of appropriate communication techniques and reflection upon teaching/learning styles, motivations, and instructional techniques. Introduces doctoral students to the academic discipline of communications media in higher education. Explores the goals of communications media education and challenges for administration of communications media programs. Students will also explore the relationship between teaching, scholarship, and service in communications media. Co-requisite: COMM 801

COMM 818 Media Criticism 3 cr.

This course examines the basic language and techniques of media criticism from both theoretical and application perspectives. Students will read and analyze current literature pertaining to broadcast media, film, and new media as well as develop a personal construct based on cultural patterns and media issues found in 21st century society. It will primarily focus upon media designed for post high school aged audiences. Co-requisite: COMM 801

COMM 820 Political Communication

Reviews major areas of research in political communication, with an overview of the key concepts and theories regarding communication's role in politics and political process. An interdisciplinary approach to the field of political communication will be explored through research and scholarship in diverse disciplines such as Communication, Political Science, Psychology, and Sociology. The role of communication in and through legislative processes and outcomes, political campaigns and debate, news media, civic engagement, public opinion, political discourse and political identity construction, will be examined.

COMM 822 Children and Media 3 cr.

This course analyzes the scope of media in relationship to children. The course examines the impact that media has on children in terms of behavior and culture. It also examines the influence children have in shaping the media. Discussions focus on multiple forms of children's media including those within entertainment and education. Co-requisite: COMM 801

COMM 825 Quantitative Methods in Communication Research 3 cr.

Presents students with methods to conduct quantitative research in the communications theoretical and applied domains. Provides students with the necessary skills to plan for and interpret quantitative data. Students will learn the fundamentals of quantitative modeling and statistical analysis to develop and answer communication problems. Students become familiar with principles for formulating hypotheses, selecting experimental and quasi-experimental designs, and using statistical software and other resources to conduct and interpret quantitative findings. Prerequisite: COMM 800

COMM 828 Qualitative Methods in Communications Research 3 cr.

Students will examine the theoretical basis and history of qualitative methods within the field of communications media and instructional technology. They will become familiar with primary qualitative methods and then apply that knowledge to important studies within the field. They will also design and implement qualitative research strategies in research exercises. Prerequisite: COMM 800

COMM 830 Media Preproduction 3 cr.

Focuses on preproduction activities such as script treatments, storyboarding, scriptwriting, editing, and production management. Students analyze case studies and real-world situations to better understand the planning of media development. Students also develop a preproduction plan for a substantial media production in the areas of audio, video, film, photography, animation, games, simulation, and educational media.

COMM 832 Media Production 1-6 cr.

This production course may be taken for variable credit between one and six credits. It provides students with an array of media production skills related to audio, video, photographic, typographic, two-dimensional design, and web-related production skills. The course is presented in modular form with each module equaling one credit. A student may test out of any or all of the modules but must substitute the credits with an elective approved by the student's advisor. Prerequisite: COMM 830

COMM 835 Global Media, Communication and Culture 3 cr.

Analyzes cultural differences based on globalization and intercultural communication theories. Emphasis is placed on interdisciplinary backgrounds to aid understanding the intersection of culture, media and communication. Through understanding and discussion of the diversity of cultures and previous studies, students will apply concepts and theories in global media, culture and communication to their own research interests.

COMM 845 Health Communication 3 cr.

Explores the role of communication campaigns in the area of public health. Students will develop the skills necessary to use media strategically to advance persuasive health messages through design, production and dissemination. Applies communication theory to the promotion of health messages.

COMM 846 Instructional Media Solutions 3 cr.

Analyzes the varied theoretical approaches to the design, development, implementation, and evaluation of media solutions to human competency problems. Students discuss models of performance analysis and policies, strategies, and tactics for developing competence, including instructional design. Students are required to analyze existing instructional systems and present recommendations for improving those systems, based on models and strategies discussed in class.

COMM 853 Corporate Communications 3 cr.

This course provides students with the necessary skills to design, inform, and implement communications media strategies within the corporate environment. Students will learn the importance of communication and its impact on the affected publics. Through developing written, oral, and managerial communication, students will be able to execute multidirectional communication within a corporate setting. Students will explore corporate communication functions including internal communication, corporate promotions, and marketing communications. Prerequisite or co-requisite: COMM 801

COMM 857 Doctoral Seminar in Communications Culture and Technology 3 cr.

Provides an advanced forum in which to research, discuss, and document current and emerging topics, issues, and applications in communication technology. Offers students the opportunity to conceptualize and develop models and strategies for group problem solving. Emphasis will be placed on students' applying this knowledge to in-class group problem solving. Students will work in a group(s) to formulate and implement a detailed plan for solving an organizational problem.

COMM 876 Online Media 3 cr.

Introduces students to the development and distribution of media via satellite, broadband, and other digital delivery systems. Students will discuss production, fiscal, ethical, and technological issues surrounding streaming, file sharing, wireless connectivity, and podcasting. In the majority of the course, students will develop a production with audio and video components for online distribution and give justification for the selected strategies.

COMM 881 Special Topics 3 cr.

Will allow the department to develop and formatively evaluate potential new courses, especially electives, within the program. Will also allow the department to develop and deliver courses that are reactive to events and circumstances within the field that may lead to a one- or two-time offering of a course.

COMM 882 Simulations and Games 3 cr.

Focuses on the design, development, and distribution of electronic games and simulations.

Discussions will focus on ethics, controversies, and economics of the gaming industry. The role of instructional, promotional, and entertainment-based simulations will be discussed. Students will learn to use advanced multimedia production tools to create simulations and games for varied purposes, accompanied by a written explanation of selected strategies.

COMM 900 Culture of Cyberspace 3 cr.

In this theory-intensive course, students will be exposed to a wide variety of theoretical and empirical studies regarding the educational, corporate, social, and political aspects of social media. Privacy, copyright, blogging, network trends, video-knowledge sharing, and learning will be topics discussed in this class. Students will be required to analyze current media literature and build culture-based arguments in order to generate original research using cyberspace as a construct. Prerequisite: COMM 801.

COMM 910 Advanced Doctoral Research in Communications 3 cr.

Serves as an advanced experience to assure students are prepared to do professional research in communications. Students will design a complete communications research project suitable for professional presentation and publication. Their work will encompass research design, measurement techniques, statistical procedures, and philosophies of research. Quantitative and qualitative approaches will be considered. Also covered are practical points such as data collection and generation strategies, concept definitions, database structure, and report design. Prerequisites: COMM 825, and COMM 828.

COMM 995 Dissertation 1-12 cr.

Provides the student with an opportunity to complete and defend the dissertation. Constitutes the completion of the entire program of study. All coursework must be completed before the student can register for dissertation credits; therefore, all courses in the program are prerequisites. Additionally, the student must have successfully completed the proposal defense.

*Indicates dual-listed class

COSC: Computer Science

Department of Computer Science
College of Natural Sciences and Mathematics

COSC 581 Special Topics in Computer Science 3 cr.

Seminar in advanced topics from computer science; content will vary, depending on the interests of the instructor and students (consult department for currently planned topics). May be repeated for additional credit. Prerequisite: Permission of instructor.

COSC 604 Elements of Internet Programming 3 cr.

Focuses on writing platform-independent, object-oriented programs that are usable across the Internet. The language uses a write-once, run-anywhere approach, while providing adequate security. Course covers input and output, applets, graphics primitives, control structures, encapsulation, inheritance and polymorphism, event-based processing, animations, multithreading, exception handling, sandbox security, networking, and java beans. Prerequisite: COSC 110 or equivalent programming course.

COUN: Counselor Education

Department of Counseling

College of Education and Communications

COUN 590 Improving Professional Practice in Instructional Settings 1-3 cr.

and

COUN 591 Improving Professional Practice in Instructional Settings 1-3 cr.

Reviews current research in instructional practices, motivational techniques, and professional issues. The course may focus on any of these aspects of teaching, learning, or professional practice. In addition, the course may be presented with a kindergarten through grade twelve, elementary, middle school, secondary, or adult orientation. This course is offered only for continuous professional development and may not be applied toward a graduate degree.

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

COUN 613 Counseling Children 3 cr.

Students are provided with an in-depth exploration of the counseling skills and techniques necessary for working with children. The topics, as they apply to children, include: developmental and cultural considerations, professional counseling ethical and legal issues, need for age-specific services and interventions, counseling children with disabilities/ELL, and working within children's systems. Students will also learn to compare different theoretical approaches related to professional counseling work with children. Current research about best practices for counseling children will be explored including diagnosis often given in childhood and treatment planning. Prerequisites: COUN 617, 637 or equivalents.

COUN 615 Counseling Across the Life Span 3 cr.

Examines theories of human growth and development across the lifespan as well as counseling theories, methods, and techniques that could be used to help clients/students, including persons with disabilities and English Language Learners, address developmental challenges. Prerequisite: None.

COUN 617 Basic Counseling Skills 3 cr.

Practice in developing effective basic counseling skills, including active listening, attending, building rapport, and demonstrating empathy. Observing, interviewing, and consulting procedures are developed.

COUN 618 Multicultural and Diversity Issues in Counseling 3 cr.

This course is an overview of multicultural and diversity issues in the field of counseling. Students will increase their awareness and knowledge regarding diversity in worldviews often held by marginalized clients/students and the ways in which these variables impact the counseling process. The focus will be on counseling clients/students across the lifespan while being culturally responsive regarding race, ethnicity, sexual orientation, religion, disability status, ELL, and other characteristics. Students will develop self-awareness about their own cultural background and identify culturally appropriate counseling skills.

COUN 621 Introduction to Professional School Counseling 3 cr.

This course provides an overview of the history and current trends in professional school counseling, specifically focusing on the role of the professional school counselor within a comprehensive, developmental school counseling program that is based on the American School Counselor Association (ASCA) National Model and applicable state models of school counseling in the Pre-Kindergarten through 12th grade experience, serving all students including students with disabilities and English Language Learners.

COUN 624 Assessment Procedures for School Counselors 3 cr.

Basic statistical and measurement concepts utilized in testing and test interpretations in schools. Emphasis is also placed on the selection, administration, and interpretation of formal and informal assessment procedures that facilitate career, emotional/social, and academic development for all students, including those with disabilities and who are English Language Learners, in school settings. Prerequisite: None, though this course is limited to students in the School Counseling Program.

COUN 628 Management of a Professional School Counseling Program 3 cr.

Helps the school counselor acquire the necessary competencies to organize and manage a professional school counseling program. Emphasis is on planning, designing, implementing, evaluation, and enhancing the school counseling program. Prerequisite: COUN 621.

COUN 634 Assessment Procedures for Clinical Mental Health Counselors 3 cr.

Provides an overview of the fundamental knowledge of assessment principles and procedures used in clinical mental health counseling. Standardized and nonstandardized testing will be covered and include statistical concepts such as standard scores, reliability, validity, norm groups, and commonly used instruments. Alternatives to standardized testing will be covered as methods to appraise individuals' abilities to live, learn, and work in the community. Prerequisites: None, though this course is limited to students in the Clinical Mental Health Program.

COUN 636 Career Counseling 3 cr.

This course overviews the individual career development process across the lifespan from various theoretical perspectives in school and clinical mental health settings. The course considers developmentally relevant career strategies such as career guidance curriculum, group and individual interventions, decision-making skills, career needs of English Language Learners (ELL) and individuals with disabilities, and the processing/use of career related information. The acquisition of knowledge of self and vocational skill/ability that leads to effective career decision making is also emphasized. Prerequisite: None

COUN 637 Counseling Theories 3 cr.

Specific counseling theories and corresponding interventions with children, adolescents and adults will be covered. Integrating theories to match client concerns will be emphasized. Prerequisite: COUN 617.

COUN 639 Group Counseling Theory and Experience 3 cr.

This course is designed to provide students an understanding of group theory and processes. Considerable emphasis is placed upon ethical and professional issues related to groups, characteristics of group stages, techniques designed to foster healthy/therapeutic group

dynamics, and how groups influence individuals as they relate to common concerns or problems. This course provides exposure to groups designed to meet the needs of clients/students across the life span. The course will enable students to evaluate the outcomes of group counseling in order to be a more effective group facilitator. This class also requires a 10 hour personal growth group experiential component, fulfilling the CACREP group experience requirement for counseling department students. Prerequisite: None.

COUN 657 Individual Counseling Practicum (Clinical Mental Health) 3 cr.

Provides a 75 hour (30 direct hours) supervised mental health individual counseling practicum with children, adolescents, or adults via supervised clinical experiences to develop and utilize advanced individual counseling skills and techniques within a meaningful theoretical framework. Emphasis is on skill acquisition and the development of effective methods of facilitating the counseling process. Counseling theory and a variety of techniques will be drawn upon in the movement toward client goal attainment. Through group and individual/triadic supervision experiences, students will evaluate recorded sessions, conceptualize cases, and discuss approaches to client issues. Students must pass this practicum experience with a B or better in order to advance to field experience. Prerequisites: COUN 617, COUN 627 or COUN 637, and COUN 720. Students enrolled in MEd program are restricted from taking this course.

COUN 659 Secondary School Counseling Practicum (Clinical Mental Health) 3 cr.

This course provides a 50 hour supervised clinical experience (20 direct hours) for professional school counselors in training to develop and utilize developmentally appropriate counseling skills and techniques with adolescents ages 13-21. Emphasis is on developing a theoretical framework and applying the counseling skills necessary for facilitating individual and group counseling. Through group and individual/triadic supervision experiences, students will evaluate recorded sessions, conceptualize cases, and discuss approaches to client issues in order to assist in the academic, career, and emotional/social growth of all adolescents, including those with disabilities and English Language Learners (ELLs). Prerequisites: COUN 617, COUN 621, COUN 627 or COUN 37, COUN 629 or COUN 639, COUN 720 or COUN 730. In addition, grades in any previous practicum experience must be at least a B or better. Students enrolled in the MA program are restricted from taking this course.

COUN 667 Elementary School Counseling Practicum 3 cr.

This course provides a 50 hour supervised clinical experience (20 direct hours) for professional school counselors in training to develop and utilize developmentally appropriate counseling skills and techniques with children ages 3-12. Emphasis is on developing a theoretical framework and applying the counseling skills necessary for facilitating individual and group counseling. Through group and individual/triadic supervision experiences, students will evaluate recorded sessions, conceptualize cases, and discuss approaches to client issues in order to assist in the academic, career, and emotional/social growth of children. Prerequisites: COUN 617, COUN 621, COUN 627 or 637, COUN 629 or 639, COUN 720 or COUN 730. Students must pass this practicum experience with a B or better in order to advance to field experience. Students enrolled in the MA program are restricted from taking this course.

COUN 669 Group Counseling Practicum (Clinical Mental Health) 3 cr.

Provides a 25 hour (10 direct hours) supervised clinical mental health group counseling practicum with children, adolescents, or adults to develop and utilize basic and advanced group counseling skills and techniques. Emphasis is on skill acquisition and the development of effective methods of facilitating the group process. Through group and individual/triadic supervision experiences, students will evaluate recorded sessions, conceptualize group dynamics, and discuss approaches to group facilitation. Students must pass this practicum experience with a B or better in order to advance to field experience. Prerequisites: COUN 617, COUN 639, and COUN 720. Students enrolled in MEd program are restricted from taking this course.

COUN 670 Human Sexuality Issues for Counselors 3 cr.

Provides an overview of human sexuality issues for counselors and examines the role of sexuality in human adjustment, dynamics of individual/societal sexuality issues, and counseling approaches. Prerequisite: COUN 615.

COUN 671 Diagnostic and Treatment Issues for Counselors 3 cr.

This course is a three-credit requirement for Clinical Mental Health Counseling students. It provides an introduction to the principles and practices of the diagnostic process with a focus on the current edition of the Diagnostic and Statistical Manual of Mental Disorders. It focuses on the history of the major classification system, descriptions of various mental disorders, and their corresponding diagnostic criteria. Treatment issues and an introduction to the use of medication related to mental disorders will also be covered. Prerequisite: None.

COUN 672 Counseling and Consulting Within Systems 3 cr.

Students will be provided with an in-depth exploration of systems theory and its interface in school, clinical mental health, and family counseling work. Students will develop an understanding of how to engage collaboratively with larger systems that have an impact on persons, families, and communities. The aim of this course is to develop collaborative clinical and consulting knowledge that contributes to families, organizations, and communities within a social justice framework. Models and processes for consulting within systems will also be applied to the work of counselors. Prerequisites: COUN 617 and COUN 637.

COUN 673 Wellness-Based Counseling 3 cr.

Definitions and models of wellness are presented. A theoretical model of human change processes is examined. Using a specific model of wellness in combination with the model of change, students explore human change and wellness from personal and interpersonal perspectives. Current methods and research on habit change, incorporating concepts of commitment, adherence, and maintenance of change are considered.

COUN 674 Addictions and Addictions Counseling 3 cr.

This three-credit elective course provides an opportunity to develop an understanding of the addictive process and its relation to counseling clients with a variety of chemical and behavioral addictions. The course examines theories, techniques, and practices of addictive behavior and addictions counseling.

Student competencies are enhanced by participation in activities addressing theoretical, as well as practical, knowledge of addictions counseling.

COUN 675 Grief Counseling 3 cr.

An in-depth exploration of the grief process with a focus on grief counseling strategies. The differences between “grieving well” and complicated mourning will be explored, along with counseling strategies to facilitate a healthy grieving experience. Providing counseling to individuals (children-adult) and families experiencing the trauma caused by a loss such as suicide, death of a child/sibling, homicide, and unexpected death will be included.

COUN 676 Counseling Issues in Adolescence 3 cr.

Examines research pertaining to challenging issues in modern adolescence. Commonly used counseling approaches are covered, and specific counseling issues pertinent to this developmental stage are explored in depth.

COUN 677 Crisis and Addiction Counseling 3 cr.

Students will develop an understanding of counseling clients/students during crisis, disaster, and other trauma causing events and counseling clients/students through addictive process relating to chemical and behavioral addictions. For crisis and addiction counseling, this course will examine theories, models, assessment techniques, and intervention strategies. The counselor’s collaborative role in crisis preparedness and response is discussed, including self-care strategies appropriate during crisis and addiction counseling. Student competencies are enhanced by participation in activities addressing theoretical as well as practical knowledge of crisis and addiction counseling. Prerequisite: COUN 617 Basic Counseling Skills.

COUN 678 Spiritual Issues in Counseling 3 cr.

This is a special topics course that is designed to assist counseling students to become more informed about and aware of spiritual issues that affect them, their clients, their communities and society. Emphasis is placed on how spiritual practice influences one’s work as a counselor and how in-session psycho-spiritual interventions and between-session spiritual practice may deepen the client’s work beyond the levels typically addressed by traditional “talk therapies.”

COUN 681 Special Topics 3 cr.**COUN 682 Counseling Students/Clients with Disabilities**

This course provides students with an in-depth understanding of counseling youth and adults with disabilities in school and community settings. This includes the responsibilities and competencies of school and clinical mental health counselors according to applicable laws and standards. Course content includes understanding developmental and psychosocial issues and implications for effective individual and systemic interventions. An overview of specific disabilities is also emphasized. Prerequisite: COUN 617 Basic Counseling Skills

COUN 699 Independent Study 1-3 cr.

Topic pertinent to the individual’s program of study. By permission of department chairperson and advisor only.

COUN 710: Clinical Mental Health Counseling 3 cr.

Historical and philosophical trends in clinical mental health counseling will be surveyed along

with strategies for designing, implementing, and evaluating clinical mental health counseling programs/services in the public and private sector. Prerequisite: COUN 720

COUN 720 Professional Orientation and Ethical Practice in Counseling 3 cr.

This course is designed to examine the professional, ethical, and legal issues that impact the practice of the professional counselor working in a variety of counseling settings. Considerable emphasis is placed upon the understanding and application of ethical standards and legal statutes, which affect counselors when making critical decisions about clients/students. Professional identity development, including orientation to the counseling profession and professional organizations will also be the focus of this course.

COUN 738 Advanced Counseling Theory: Specific Theoretical Approach 3 cr.

This course extends beyond Counseling Theory (COUN 637) as it provides in-depth exploration of a specific counseling theory, including its origins, development, and range of individual and group counseling applications. Emphasis is on learning and practicing therapeutic intervention strategies rooted in this theoretical approach. This course can be taken up to three times, focusing on a different counseling theory. Prerequisites: COUN 617, 637 or equivalents.

COUN 755 Field Experience 3 cr.

Provides a supervised professional practice field placement for students in the Counseling programs. The plan and scope of the field experience will be determined by the student and supervising faculty on an individual basis and in keeping with the departmental policies and procedures as stated in the Field Experience Handbook. May be repeated for a maximum of six credits. Prerequisites: Core and practicum courses. COUN 615, 617, 618, 636, 637, 639, 720. Additionally, MED students are required to have taken COUN 621, 624, 628, 659, and 667. MA students are also required to have taken COUN 634, 657, 669, 671, and 710

COUN 795 Thesis 3 cr.

COUN 798 Internship in Counselor Education 3 cr. or 6 cr.

The internship provides an opportunity to apply didactic experiences in an actual work setting. Sites must be approved by the department.

COUN 860 Counselor Education and Supervision Professional Identity 3 cr.

Examination of the professional identity of a Counselor Educator and Supervisor, current issues and trends in the field, involvement in scholarly activities, professional service, and responsibilities of the doctoral degree. The professional roles in five doctoral core areas are explored: counseling, supervision, teaching, research and scholarship, and leadership and advocacy. Prerequisite: Restricted to students admitted to the Counselor Education Doctoral Program.

COUN 870 Advanced Counseling 3 cr.

Explores major counseling theories in depth and through analysis of their utility within multiple contexts; lesser known ones and contemporary applications are also covered. Content includes critical evaluation of applicability to multicultural populations, evidence based practices, and

integration of theories. Use of theories in measuring counselor effectiveness, clinical instruction of theories, and the professional development of students is emphasized. Prerequisite: Restricted to students admitted to the Counselor Education Doctoral Program.

COUN 880 Preparation for the Professoriate: Leadership and Advocacy in the Counseling Profession 3 cr.

Prepares students for entering the professoriate through study and application of the principles and practices of leadership, advocacy, and service in professional counseling. Exploration of current topical and political issues in counseling and how these issues affect the counseling profession and faculty role. Students use contemporary research to analyze the current trends and issues of the counseling profession. The course also includes practice in developing leadership and advocacy skills. Prerequisite: Restricted to students admitted to the Counselor Education Doctoral Program.

COUN 890 Quantitative Research and Statistical Analysis in Counselor Education 3 cr.

Prepares students for basic quantitative research in counseling. Research design, statistics, data analysis, and institutional review board preparation for doctoral-level research projects, scholarly publications and grant proposals in Counselor Education and Supervision will be emphasized. Prerequisite: This course is limited to doctoral students in the Department of Counseling.

COUN 900 Preparation for the Professoriate: Teaching in Counseling 3 cr.

Focuses on the development of university-level teaching in counselor education. Course development, syllabi construction, course evaluation, and class implementation will be highlighted. Students will explore multiple strategies for classroom teaching to create interactive learning environments for students. Students will also develop teaching philosophies that will be demonstrated in constructing, teaching and evaluating at least 3 graduate counseling courses. Ethical guidelines for teaching in counselor education will also be covered in this course. Prerequisite: Restricted to students admitted to the Counselor Education Doctoral Program.

COUN 910 Counseling Supervision and Consultation 3 cr.

Examination of supervision and consultation practices within clinical mental health and professional school counseling settings, as well as the supervisory responsibilities of counselor educators. Exploration of the ways in which clinical supervision parallels the therapeutic process, including requisite roles and responsibilities, varying theoretical orientations, and strategies for implementation, reflection on relevant legal and ethical considerations, and assessment of current field-specific issues and trends. Prerequisite: Restricted to students admitted to the Counselor Education Doctoral Program.

COUN 920 Qualitative Methodology in Counselor Education 3 cr.

Introduces students to qualitative research and will prepare them for basic qualitative research inquiry relevant to counseling and counselor education. Qualitative research theory, design, data collection, data analysis and representation, validity, reliability, and ethical considerations in Counselor Education and Supervision will all be emphasized. Prerequisite: Restricted to students admitted to the Counselor Education Doctoral Program.

COUN 930 Doctoral Practicum in Counseling 3 cr.

Participates in a 100 hour (40 direct hours) doctoral level, supervised counseling practicum in an agency or school setting. Emphasis will be placed on applying counseling theories and techniques in a clinical setting customized to the student's learning goals. Focus on theoretical integration, diagnostic evaluation, and accountability under intensive supervision. Prerequisite: Restricted to students admitted to the Counselor Education Doctoral Program.

COUN 940 Preparation for the Professoriate: Research in Counselor Education and Supervision 3 cr.

Examines the status of current research in various domains in counseling and the academics role of scholarly inquiry. Students will articulate their role as researcher/scholar as future faculty in institutions of higher education. Students are expected to more fully develop their dissertation proposal through course content and have completed the initial chapters of this project. Prerequisite: Restricted to students admitted to the Counselor Education Doctoral Program.

COUN 950 Research Specialty: Advanced Research in Counselor Education 3 cr.

Provides a deeper understanding of methods of research in educational settings. Students will choose either an advanced quantitative or advanced qualitative research project relevant to the profession of Counselor Education and Supervision. Exploration of advanced methodological principles within theoretical frameworks and procedures will provide the framework for this course. Prerequisite: COUN 890 and COUN 920.

COUN 960 Doctoral Field Experience in Counselor Education 3 cr.

Apply counselor education knowledge and skills in a 300-hour intensive capstone field experience in three of the following five areas: counseling, supervision, teaching, research and scholarship, and leadership and advocacy. Under supervision, experience is gained in a customized field setting relevant to student's professional goals. Repeated for a maximum of 6 credits. Prerequisite: COUN 860, COUN 870, COUN 880, COUN 890, COUN 900, COUN 910, COUN 920, COUN 930, and COUN 940.

COUN 995 Dissertation 6 cr.

Provides an opportunity for students to successfully propose, complete, defend, and submit the dissertation. Students must demonstrate doctoral level scholarship in counselor education and supervision by conducting a research investigation in the principal field of study and making an original contribution to knowledge in the field.

CRIM: Criminology

Department of Criminology and Criminal Justice
College of Health and Human Services

CRIM 600 Criminological Theory 3 cr.

An examination of criminological theories with emphasis on origins and applications of relevant theoretical approaches to crime and criminally deviant behavior. Required of all master's students.

CRIM 601 Proseminar 3 cr.

Survey of current research, critical issues in the administration of justice, and criminological

theory. Designed to acquaint the student with recent developments in the discipline of criminology. Required of all master's students.

CRIM 605 Research Methods 3 cr.

Methods and techniques of research in criminology. An in-depth examination of the role of research in the analysis, interpretation, and clarification of problems in criminology and the administration of justice. The development of a research proposal/thesis prospectus will be the end product of the course. Required of all master's students.

CRIM 610 Legal Issues in Criminology 3 cr.

An in-depth study of contemporary legal issues faced by criminal justice professionals. Emphasis is placed on criminal constitution problems as well as the judicial review of administrative decisions made by criminal justice organizations. Required of all master's students.

CRIM 630 Seminar in Administration and Management in Criminal Justice 3 cr.

The study of bureaucracy and complex organization with emphasis on the concepts and practices of the organization and management of agencies in the administration of justice. Required of all master's students.

CRIM 631 System Dynamics in Administration of Justice 3 cr.

A study of dynamic systems and analytical techniques relevant for understanding new perspectives of the administration of justice. Required of all master's students.

CRIM 632 Organizational Dynamics within the Criminal Justice System 3 cr.

An examination of organizational and systems theories, concepts, applications, and research within the criminal justice system. Attention is given to the role organizations play independently and collectively in the administration of justice. Required of all master's students.

CRIM 645 The Dynamics of Cybercrimes 3 cr.

An examination of the current and future issues in cybercrimes. Emphasis will be given to criminals and victims, law enforcement, state and federal laws, criminology theories, and the development of research topics in cybercrimes.

CRIM 681 Special Topics 3 cr.

Special Topics courses are offered at the discretion of the department in a wide area of subjects directly related to law enforcement, courts, corrections, or security.

CRIM 694 Applied Teaching in Associate Degree Programs 3 cr.

Provides an overview of responsibilities and tasks required when teaching criminology and criminal justice classes in associate degree programs. The adjunct faculty role will be identified. Pedagogical practices will be discussed. Evaluation includes the development of a portfolio, which includes a teaching philosophy statement, and a course design represented by a syllabus, lectures, assignments and exam questions.

CRIM 699 Independent Study 3 cr.

Research of a significant issue or problem in criminology or the administration of justice.

Instructor, coordinator, and chair approval required. May be taken twice for a maximum of 6 semester hours.

CRIM 718/818 Quantitative Strategies for Analysis in Criminology 3 cr.

Computer analysis of quantitative data to the behavioral science of criminology: the logic of data analysis, fundamentals of statistical procedures commonly used in criminological analysis. Students also learn to critique published criminological research.

CRIM 730/830 Ethical and Philosophical Issues in Criminology 3 cr.

An intensive examination of selected ethical and philosophical issues currently facing the field of criminology. Issues for analysis will be drawn from (but not limited to) such categories as the function of law; integrating theory and practice; ethical issues surrounding research strategies; punishment forms; social control strategies; and crime and justice in the future.

CRIM 744/PLSC 744 Terrorism 3 cr.

An in-depth study of the legal and international issues that the U.S. faces in response to combating international terrorism. Emphasis is placed on identifying causes of terrorism and the most plausible threats; terrorist networks, their commonalities and differences, and the difficulty in countering; and determining appropriate responses, to include political and legal implications, threat analysis, physical security, and target hardening. Prerequisites: Enrolled in CRIM or PLSC graduate program, or permission of instructor.

CRIM 765/865 Criminal Justice Planning and Evaluation 3 cr.

The study of planning and evaluation in criminology and the administration of justice and of the literature and practices, including problems, issues, and tasks confronting planners and evaluators.

CRIM 770/870 Seminar in Contemporary Corrections 3 cr.

An examination of current issues and problems in contemporary corrections.

CRIM 781/881 Special Topics 3 cr.

CRIM 785/885 Seminar in Contemporary Juvenile Justice and Delinquency 3 cr.

An examination of current issues and problems in contemporary juvenile justice and delinquency.

CRIM 790/890 Seminar in the Contemporary Judicial System 3 cr.

An examination of current issues and problems in the contemporary judicial system.

CRIM 791 Synthesis Project 3 cr.

Provides a synthesis of theory, research, and policy in criminology/criminal justice. This course will be taken during the student's final semester in the program, unless exceptional circumstances exist. The development of a substantial paper and oral presentation will be the required end products of this course. Prerequisites: CRIM 600, 601, and 605. Required of all non-thesis master's students.

CRIM 795 Thesis 3-6 cr.

CRIM 798/898 Graduate Readings in Criminology 3 cr.

With faculty supervision, students read at least six major criminological texts and participate in a seminar situation for the purpose of discussing the reading materials.

CRIM 799/899 Independent Study 3 cr.

CRIM 810 Advanced Theoretical Criminology 3 cr.

An intensive examination and critical analysis of the original works of selected theorists. Major theorists will be chosen each semester based on the interests of the professor and students.

CRIM 817 Advanced Qualitative Methods 3 cr.

Explores the criminological research enterprise from the qualitative perspective. Focuses on the relationship among all components of research design, including problem formulation, theory, data collection, analysis, and presentation of findings. Students individually design a project and carry out preliminary stages of data collection. Permission required.

CRIM 820 Advanced Quantitative Methods 3 cr.

An in-depth analysis of the logic and uses of advanced criminological research models. Emphasis will be given to the use of quantitative research techniques and perspectives as they relate to formal theory construction.

CRIM 840 Advanced Criminal Justice Policy 3 cr.

A study of the impact of government crime policies on individuals and groups. An examination of criminal justice policy formulation and analyses of specific policies relevant to crime and the administration of justice.

CRIM 845 Comparative Justice Systems 3 cr.

An examination of criminological field research in diverse cultural settings around the world. Special focus given to problem formulation, theory construction, and general research design in comparative justice systems.

CRIM 847 Victimology: Theory, Research, and Policy Issues 3 cr.

Examines theoretical perspectives and research methods as they have impact on the research questions and findings in the field of victimology. Class, race, age, and gender are applied to analyze issues regarding the role of the victim, kinds of victimization, fear of crime, victimization of offenders and victims by the criminal justice system, and victim's compensation and human rights.

CRIM 848 Criminal Violence: Theory, Research, and Issues 3 cr.

An overview of general theories of violence and their applications to criminal violence. A variety of research and policy/programmatic issues will be explored, with attention given to issues relating to predicting dangerousness.

CRIM 851 Doctoral Colloquium in Criminology 3 cr.

Provides an academic setting for graduate students to present research and theoretical papers for

group discussion. Special Topics in criminology will be selected each semester.

CRIM 901 Advanced Applied Research I 3 cr.

The application of selected principles of criminological theory and research methods toward understanding and resolving specific problems of justice processing.

CRIM 902 Advanced Applied Research II 3 cr.

The application of selected principles of criminological theory and research methods toward understanding and resolving specific problems of justice processing.

CRIM 903 Advanced Applied Research III 3 cr.

The application of selected principles of criminological theory and research methods toward understanding and resolving specific problems of justice processing.

CRIM 904 Advanced Applied Teaching Techniques 3 cr.

A review of prominent models of effective teaching and the applications of selected models of teaching theory to specific criminological courses.

CRIM 995 Dissertation 1-12 cr.

CURR: Curriculum and Instruction

Department of Professional Studies in Education
College of Education and Communications

CURR 590 Improving Professional Practice in Instructional Settings 1-3 cr.
and

CURR 591 Improving Professional Practice in Instructional Settings 1-3 cr.

Reviews current research in instructional practices, motivational techniques, and professional issues. May focus on any of these aspects of teaching, learning, or professional practice. In addition, the course may be presented with a kindergarten through grade twelve, elementary, middle school, secondary, or adult orientation. Offered only for continuous professional development and may not be applied toward a graduate degree. Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

CURR 781/981 Special Topics 1-3 cr.

CURR 798 Supervised Doctoral Internship 6 cr.

Applied field experience chosen by doctoral students with the approval of the dissertation advisory committee. Prerequisite: Permission only.

CURR 905 Implementation and Evaluation of Curriculum 3 cr.

Provides students with a frameworks for the systematic implementation and evaluation of research-based curricula. Prerequisite: Admission to the Curriculum and Instruction doctoral program.

CURR 910 Advanced Topics in Human Development and Learning 3 cr.

Students analyze, evaluate, and synthesize theories of human development and learning. Emphasis is on learning and development throughout the life span. Prerequisite: Admission to the Curriculum and Instruction doctoral program.

CURR 915 Writing for Professional Publication 3 cr.

Designed to enhance the scholarly and publishable writing skills of doctoral students in education. Students produce and submit a proposal for a presentation at a professional conference. Students also develop a full manuscript to be submitted to a scholarly journal and a book prospectus. Skills in responding to editorial feedback, peer review, and public presentation of scholarly work are developed. Prerequisites: Admission to the Curriculum and Instruction doctoral program and permission of program coordinator.

CURR 918 Qualitative Research Design in Education

Introduces doctoral students to four dimensions of qualitative research: understanding traditions and purposes, formulating research questions, collecting data, and analyzing data. Students will develop the basic skills of the qualitative researcher and be introduced to the major types of qualitative studies. Prerequisite: None.

CURR 920 Quantitative Research Methods in Education 3 cr.

Provides students with the requisite quantitative research skills to evaluate published research in education.

CURR 925 Critical Analysis of Issues in Education 3 cr.

Examines current issues, innovations, and persistent controversies that influence reform in basic and postsecondary education. Prerequisites: Admission to the Curriculum and Instruction doctoral program.

CURR 930 Effective Teaching and Supervision 3 cr.

Focuses on the interrelationship between instructional effectiveness and student achievement, with particular emphasis on postsecondary teaching and supervision.

CURR 935 Democratizing Education: Diversity, Citizenship and Social Justice 3 cr.

Integrates theory and practice related to the social and philosophical ideology of equity and excellence in education. Focus is on ways in which race, gender, culture, disability, and socioeconomic status influence educational perspectives, programs, and policies.

CURR 940 Emerging Technologies in Education 3 cr.

Focuses on educational applications of technology, from basic education through higher education, as they relate to the college faculty member's role.

CURR 945 Literacy: Theory, Research, and Practice 3 cr.

Examines critical issues and cognitive processes in language learning. Topics include changing definitions for literacy, cultural aspects of literacy, methods of fostering literacy development, and alternative assessment practices. Research and theory on strategies used to support a developmental view of literacy are critically evaluated. Prerequisites: Admission to the Curriculum and Instruction doctoral program and permission of program coordinator.

CURR 951 Innovations in Curriculum and Instruction 3 cr.

Designed to provide students with opportunities to critically evaluate educational innovation as it influences programs and outcomes for students. Emphasis will be on critical thinking, creativity, collaboration, and communication.

CURR 955 Research Proposals and Peer Review Processes 3 cr.

Students will refine their written scholarly work based on instructor feedback and peer review. Dissemination of research through professional conference presentations and publications will be the focus.

CURR 960 Comprehensive Evaluation of Educational Programs 3 cr.

Field-based course that uses the case study method to delve into the theories, models, and evidence-based methods that are used to evaluate educational programs. Doctoral candidates will identify an educational program in basic or higher education, select an appropriate evaluation model, plan a data gathering strategy that involves various stakeholders, and conduct a comprehensive program evaluation that conforms to national ethical standards for evaluators. Prerequisite: CURR 905.

CURR 982 Quantitative Data Analysis in Education 3 cr.

Designed to prepare doctoral students to identify, critique, adapt, and design data collection tools that are reliable and valid.

CURR 983 Qualitative and Mixed Methods Research in Education 3 cr.

Guides doctoral candidates in developing the conceptual frameworks that underlie qualitative and mixed methods dissertation research. Students will work with data sets to acquire the skills of transcribing, analyzing, and interpreting data.

CURR 995 Dissertation 1-12 cr.

Students preparing a doctoral dissertation for credit must register for this course. Number of credits assigned and the extent of time for which research activity is scheduled depend on nature and scope of student's research problem and his/her general doctoral program.

ECED: Early Childhood Education

Department of Professional Studies in Education
College of Education and Communications

ECED 590 Improving Professional Practice in Instructional Settings 1-3 cr.

and

ECED 591 Improving Professional Practice in Instructional Settings 1-3 cr.

Reviews current research in instructional practices, motivational techniques, and professional issues. May focus on any of these aspects of teaching, learning, or professional practice. May be presented with a kindergarten through grade twelve, elementary, middle school, secondary, or adult orientation.

Offered only for continuous professional development and may not be applied toward a graduate degree. Prerequisite: Appropriate teaching certificate or other professional credential or

preparation.

ECED 760 Child Study and Assessment 3 cr.

Designed to introduce students to issues and strategies affecting the evaluation of the three-to-eight-year-old child's physical, social, emotional, cognitive, and aesthetic development. Naturalistic observation, rating scales, tests, and portfolio assessment of children's work will be examined.

ECED 761 History and Philosophy of Early Childhood Education 3 cr.

Introduces students to the historical and philosophical foundations of the field of early childhood education. Major historical events, social trends, and philosophical perspectives from around the globe that have shaped the education of the very young will be addressed. Students will examine contemporary circumstances in early childhood education in terms of time-honored traditions and important insights from leaders in the profession.

ECED 762 Early Childhood Field Study 3 cr.

Emphasis on the role of early childhood theory and research on classroom practice. Students will observe, participate, and collect field notes in an early childhood setting. Findings will be synthesized in a written report and presented to the class. Prerequisites: ECED 760, ECED 761, and ECED 764.

ECED 764 Early Childhood Curriculum 3 cr.

Examines the developmental continuity of educational programs for the young child, ages three through eight. Materials, strategies, concepts, and learning experiences that are suited to each child's developmental level will be selected, planned, applied, and evaluated by students.

ECED 765 Issues and Trends in Early Childhood Education 3 cr.

Designed to provide early childhood educators with a child advocacy perspective on contemporary social forces, professional issues, and public policy trends affecting young children. Students develop skills in identifying key issues using problem-solving strategies, communicating ideas, and functioning as change agents within educational institutions. Interpersonal skills and collaborative relationships with colleagues, administrators, politicians, parents, and community agencies are emphasized.

ECED 766 Early Childhood Program Evaluation 3 cr.

Emphasizes the study and evaluation of programs designed for preschool through the primary grades. Students assess early childhood curricula, review relevant research, and use evaluation frameworks to assess program quality. Cross-cultural comparisons of early childhood curricula in the United States and programs from other cultures and nations are studied. Prerequisites: ECED 761, ECED 764, or permission of instructor.

ECON: Economics

Department of Economics
College of Humanities and Social Sciences

ECON 501 Foundations of Modern Economics 3 cr.

Survey of micro and macroeconomics designed for the student who is not already well grounded in the field.

ECON 562 Energy Economics 3 cr.

Focuses on a variety of energy related topics from an economics perspective. Topics include energy demand and supply, market structure and energy pricing, renewable and nonrenewable sources of energy, environmental impacts of energy use, climate change, and energy policy.

ECON 633 Managerial Microeconomic Applications 1.5 cr.

Develops analytical tools from microeconomic theory that can be practically applied to improve managers' decision-making abilities. Special emphasis is placed on optimizing pricing, production, and performance evaluation decisions using available analytical and quantitative tools, including economic theory, regression, and visualization techniques. Prerequisites: ECON 121, ECON 122, MATH 121 or the equivalent, or permission of instructor.

ECON 634 Managerial Economics 3 cr.

Applications of economic theory to organizational decision-making. Managerial practice is analyzed using techniques of maximization, minimization, and optimization. Organizational objectives are evaluated using techniques of statistical estimation of revenues, costs, and outputs. Prerequisites: ECON 121, ECON 122, MATH 121 or the equivalent, or permission of instructor.

ECON 699 Independent Study 1-6 cr.

Directed readings, written assignments, and research on a specific topic determined by the student and the instructor. Prerequisites: ECON 501, credits of "C" or better in six semester hours of Principles of Economics, or permission of instructor.

ECON/ISDS 812 Quantitative Research Methods I 3 cr.

Develop critical consumers, as well as competent producers of quantitative experimental research. The student will be able to identify characteristics which pertain to the internal and external validity of a given experiment. Given a research question, the student will produce a research design which meets minimum criteria of internal and external validity. The student will produce a research design as well as a final project that will allow observation of an experimental effect from a Management Science, Statistical or Artificial Intelligence methodology viewpoint. The student will be able to design and carry out the appropriate analysis via a program package. Prerequisite: Student in the PhD business program.

ECON/ISDS 813 Quantitative Research Methods II 3 cr.

Introduces the application of advanced statistical techniques commonly used in research within economics and business-related disciplines. Specific topics include time series econometric analysis, panel data regression analysis, limited dependent variable models, confirmatory factor analysis, path analysis, and structural equation modeling. Prerequisite: ISDS/ECON 812, Quantitative Research Methods I

ECON 820 Managerial Economics for Decision Making and Leadership 3 cr.

The application of microeconomics to decision-making. Exploration of analytical tools for measuring and defining optimal policy decisions. Optimal policies are managerial decisions that

maximize, minimize, or satisfice specified objectives of the organization. Includes building quantitative models to apply to plausible situations, using appropriate, computer-assisted decision techniques.

EDAD: Education Administration

Department of Professional Studies in Education
College of Education and Communications

EDAD 590 Improving Professional Practice in Instructional Settings 1-3 cr.
and

EDAD 591 Improving Professional Practice in Instructional Settings 1-3 cr.

Reviews current research in instructional practices, motivational techniques, and professional issues. May focus on any of these aspects of teaching, learning, or professional practice. May be presented with a kindergarten through grade twelve, elementary, middle school, secondary, or adult orientation. Offered only for continuous professional development and may not be applied toward a graduate degree. Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

EDAD 660 School Finance 3 cr.

Budgeting procedures for large and small school districts are the focus of this course. School budgeting, accounting, bonding, and various monetary applications are presented as well as the various procedures for acquiring funds.

EDAD 756 School Administration 3 cr.

Designed as a basic course in school administration, this course serves as an introduction to the principles and practices of school administration for students who aspire to a supervisory or administrative position in public schools. Human aspects of educational administration are emphasized.

EDAD 660/860 School Finance 3 cr.

Budgeting procedures in school finances, facilities, and management are presented. School budgeting, accounting, bonding, and various monetary applications are presented, as well as the various procedures for acquiring funds. Prerequisite: For approved Administration and Leadership Studies candidates or permission of the instructor.

EDAD 798 Principal Internship 3 or 6 cr.

EDEX: Special Education

Department of Communication Disorders, Special Education, and Disability Services
College of Education and Communications

EDEX 509 Instructional Strategies for Gifted Learners 3 cr.

Participants will explore issues of excellence and equity in gifted education; examine the unique characteristics of gifted learners; become oriented to the differentiation process; explore predispositions and behaviors of effective gifted teachers; and become acquainted with specific strategies for meeting the learning needs of gifted students.

EDEX 515 Preschool Education for Children with Disabilities 3 cr.

Provides information on assessment, intervention strategies, curriculum, and prescriptive planning for preschool children with disabilities. Serves as a course for departmental majors who are specifically interested in early childhood education, as an elective for other interested students in related fields, and as a required course for Disability Service majors. Prerequisite: Certification or EDEX 650 or EDEX 111 or EDEX 300.

EDEX 520 Characteristics and Etiology: A Theoretical and Practical Introduction to Autism Spectrum Disorder 3 cr.

An overview of the characteristics and learning traits, classification systems, assessment strategies/ issues, approaches, and interventions related to individuals with autism spectrum disorder (ASD). Special emphasis will be given to theoretical, actuarial and scientific hypotheses regarding the etiology of ASD and definitions, interventions, and cultural attitudes regarding ASD and their relationship to educational services.

EDEX 558 Transition Assessment and Planning for Youth with Disabilities 3 cr.

Develops competencies in the skills necessary to help students with disabilities make a successful transition from school to adult life. Transition service elements are, at a minimum, postsecondary education and training, employment, and community living. For students with disabilities, successful outcomes require self-determination and other personal-social characteristics that must be identified and supported by the transition team throughout the entire transition planning process.

EDEX 560 Family Perspectives on Disability 3 cr.

Intended for any major who will work with families and youth with disabilities. By understanding families as competent and resourceful systems, students examine critically ways to collaborate effectively with family members. This course focuses on legal and philosophical bases for supporting families in making important decisions affecting the education and care of their children. Prerequisite: PSYC 101.

EDEX 569/* Education of Persons with Emotional/Behavioral Disorders, Learning Disabilities, or Brain Injury 3 cr.

Focuses on major theoretical positions regarding etiology of emotional/behavioral disorders, learning disabilities, and brain injury; definition and identification of the populations; and educational approaches. The course will review research in the field, including current issues, trends, educational practices, and services. Throughout the course, a variety of instructional approaches (e.g., cooperative learning, simulations, role-playing) will be used to facilitate acquisition of new knowledge and skills. Students are expected to develop presentations using Internet resources and PowerPoint format.

Prerequisite: Certification or EDEX 650 or EDEX 111 or EDEX 300. This course is designed to meet teacher certification requirements.

EDEX 578/* Education of Persons with Mental Retardation/Developmental Disabilities and Physical/Multiple Disabilities 3 cr.

Focus on major theoretical positions regarding etiology of mental retardation, developmental

disabilities, a wide and diverse range of physical/multiple disabilities, and other health impairments. Definitions, population characteristics, and educational approaches are discussed. Reviews research in the field, including current issues, trends, practices, and services. Prerequisite: Certification or EDEX 650 or EDEX 111 or EDEX 300. This course is designed to meet teacher certification requirements.

EDEX 581 Special Topics

EDEX 590 Improving Professional Practice in Instructional Settings 1-3 cr.

and

EDEX 591 Improving Professional Practice in Instructional Settings 1-3 cr.

Reviews current research in instructional practices, motivational techniques, and professional issues. May focus on any of these aspects of teaching, learning, or professional practice. May be presented with a kindergarten through grade twelve, elementary, middle school, secondary, or adult orientation. Offered only for continuous professional development and may not be applied toward a graduate degree. Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

EDEX 599 Independent Study in Special Education 1-3 cr.

Individual students develop research studies in consultation with a faculty member. Departmental consent required.

EDEX 621: Models of Teaching for Gifted Learners 3 cr.

Designed to provide graduate students with an understanding of the unique teaching models best suited for gifted students and to build upon their knowledge of instructional strategies. The course also explores a framework for facilitating gifted students' individualized efforts, teaching the key steps of the exploratory process, and identifying the optimal options for self-reflective and summative evaluations.

EDEX 650 Exceptional Children and Youth 3 cr.

Surveys characteristics, definition/identification, and service delivery models for children and youth with disabilities or who are gifted/talented. Considers state and federal policies governing special education program service delivery, as well as the legal rights of individuals with disabilities.

EDEX 681/781 Special Topics 3 cr.

EDEX 750 Assessment for Instructional Planning for Students with Autism Spectrum Disorders 3 cr.

Particular attention will be given to the identification of the range of assessment domains and the valid use of the functional behavior assessment process. Practical strategies for teaching skills in the domain areas based on assessment results will be addressed. An overview of curricula, approaches, strategies, and materials used with students with Autism Spectrum Disorder will also be provided.

EDEX 751 Instructional Interventions and Methods for Students with Autism Spectrum Disorder 3 cr.

Focuses on evidence-based educational interventions for students with autism spectrum disorder. Examines practical strategies for assessing and structuring the environmental supports needed for students to participate and progress in all environments. Special attention will be given to instructional planning to accommodate and modify specific instructional programs and materials, behavioral interventions, and organizing and supervising classroom teams. Examines the necessary considerations for organizing and supervising classroom teams.

EDEX 752 Assessment of Persons with Disabilities 3 cr.

Provides students with an understanding of the diagnostic tools and techniques used to evaluate students with disabilities. Examines formal and informal assessment measures used in the diagnosis and remediation of educational problems. Emphasizes those skills expected of a special education teacher as a member of a multi/interdisciplinary team.

EDEX 753/853 Research Seminar in Special Education 3 cr.

Provides enrollees with opportunities to focus on current research in special education. Focus of research may change each term in accordance with preferences of instructor and students. Emphasizes critical analysis of research, classroom applications of that research, and implications for future research.

EDEX 754 Advanced Instructional Design in Special Education 3 cr.

Emphasizes effective instructional approaches appropriate for the education of students with mild to profound disabilities. Considers educational priorities and effective teaching practices in developing and evaluating individualized, integrated interventions.

EDEX 755 Professional Collaboration and Team Building for Special Educators 3 cr.

This course focuses on strategies for collaborating with families, agencies and other service providers in both the school and community in order to best meet students' needs. The understanding of family systems, related legal mandates, available agency resources and effective family and school collaboration will be emphasized. Assessment of the preferred level of support for families and issues related to advocacy through the community will also be addressed.

EDEX 781 Special Topics 3 cr.

EDEX 785 Practicum and Internship 3-9 cr.

Advanced students are offered guided practicum experiences in selected schools, clinics, or agencies. Internships or supervised student teaching are planned individually. Students analyze, evaluate, and report on the experience. Students will have the option to complete the practicum on campus during Summer I or to arrange for a practicum experience in the home region with online supervision. Practicum experiences at sites in home region must be approved by the Special Education Graduate Coordinator.

EDEX 795 Thesis 3 cr.

*Indicates dual-listed class

EDHL: Education of Persons with Hearing Loss

Department of Communication Disorders, Special Education, and Disability Services
College of Education and Communications

EDHL 590 Improving Professional Practice in Instructional Settings 1-3 cr.

and

EDHL 591 Improving Professional Practice in Instructional Settings 1-3 cr.

Reviews current research in instructional practices, motivational techniques, and professional issues. May focus on any of these aspects of teaching, learning, or professional practice. May be presented with a kindergarten through grade twelve, elementary, middle school, secondary, or adult orientation. Offered only for continuous professional development and may not be applied toward a graduate degree. Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

EDSP: Educational and School Psychology

Department of Educational and School Psychology
College of Education and Communications

EDSP 523/* Educational Programming for Gifted Learners 3 cr.

To familiarize educators with various service delivery options in K-12 gifted education programs and to assist them in determining which options are best for which types of gifted learners. Participants will explore methods for interpreting educational assessments, modifying classroom instruction, and assessing effectiveness of interventions for high-ability students.

EDSP 577 Assessment of Student Learning 3 cr.

Acquaints students with major methods and techniques of evaluation used to assess and report growth, development, and academic achievement of learners in elementary and secondary schools, including interpretation of standardized test information.

EDSP 581 Special Topics 3 cr.

EDSP 590 Improving Professional Practice in Instructional Settings 1-3 cr.

and

EDSP 591 Improving Professional Practice in Instructional Settings 1-3 cr.

Reviews current research in instructional practices, motivational techniques, and professional issues. May focus on any of these aspects of teaching, learning, or professional practice. May be presented with a kindergarten through grade twelve, elementary, middle school, secondary, or adult orientation. Offered only for continuous professional development and may not be applied

toward a graduate degree. Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

EDSP 624 Social, Emotional, and Cultural Factors in the Education of Gifted Learners 3 cr.

Designed to familiarize educators with the social and emotional characteristics of gifted learners and their families and to increase awareness of current and past attitudes toward high-ability learners in American cultures. The goal is to improve educational programs for gifted learners through an increased awareness of cultural, social, emotional, and familial factors related to positive learning outcomes for this population.

EDSP 681 Special Topics in Educational Psychology 3 cr.

Designed for those students who wish to do independent research in special areas. Prerequisite: Departmental chairperson permission.

EDSP 699 Independent Study 3 cr.

EDSP 704/804 Advanced Educational Psychology 3 cr.

An upward extension of educational psychology with a systematic review of current research and learning theory with emphasis on classroom applications, including studies of the organization, administration, and operation of schools.

EDSP 705 Multicultural Issues in Schools and Communities 3 cr.

Designed to assist students in identifying issues related to minority cultures and examine the influence this has on attitudes, values, and biases related to psychological processes within the contexts of family, school, and community. The course includes topics regarding how persons are acculturated and how being a member of a minority culture affects participation in societal structures. An explication of how bias and prejudice against persons of minority status develop and impact societal institutions (e.g. schooling) will be provided. Special emphasis will be given to issues related to culturally appropriate assessment practices.

EDSP 711 Introduction to School Psychology 3 cr.

The professional responsibilities of the school psychologist are explored in relation to ethical and legal aspects, state and federal litigation and legislation, dynamics and organization of regular and special education, issues in multicultural and exceptional child education, and provision of assessment, placement, and intervention services in the public schools. Prerequisite: Permission of the instructor.

EDSP 717/817 Evaluating the Effectiveness of Program Interventions 3 cr.

This course provides an overview of the application of the issues, theories, models, and techniques of program evaluation with a focus on conducting evaluations, measuring variables, analyzing data, reporting findings, and using results for evaluating and improving intervention programs.

EDSP 745 Counseling for School Psychologists 3 cr.

This course introduces students to the knowledge, techniques, skills, and processes basic to initiating, conducting, and terminating an effective counseling relationship with emphasis on the school setting. The course will expose students to a wide variety of conceptual models but the

focus will be on problems typically beginning in childhood and/or adolescence. Prerequisite: For approved School Psychology Candidates

EDSP 746/846 Learning and Instruction 3 cr.

Provides an in-depth examination of developmental, cognitive, and interactionist learning theories as they apply to classroom instruction. Emphasis is on direct application of theory to the improvement of classroom instruction and the relationship of learning and motivation.

EDSP 747 Psychology of Human Development 3 cr.

Students will explore human development from conception through adulthood and include a survey of growth, adaptation, and developmental patterns with implications for academic, emotional, social, and social learning. Cognitive, emotional, social, and physical development are explored, emphasizing the interactive effects of the person's environment, developmental level, and psychological state. The course will be organized in a topical manner and include basic concepts and theories of development, research in development, biological foundations of development, prenatal development, physical growth as well as cognitive and language development.

EDSP 748/848 Advanced Studies in Behavioral Problems 3 cr.

Explores behavior problems encountered in classroom situations and gives cause, characteristics, and some preventative and remedial techniques, including those appropriate for managing students with learning and behavioral exceptionalities.

EDSP 755/855 Practicum in School Psychology 1-3 cr.

Provides school psychology students with an opportunity to apply and further develop professional competencies acquired through coursework and training. Students are directly supervised in practicum experiences as they apply these skills in the university clinic, schools, mental health facilities, and other appropriate settings, thus preparing them for the independent practice of psychology in various settings.

EDSP 760 Group Counseling for School Psychologists I 3 cr.

Focuses on group counseling techniques for school psychologists. Group counseling theory, process, and evidence-based interventions will be discussed within the context of the law and ethics of the profession of school psychology. Prerequisite: Approved School Psychology candidates or permission of instructor.

EDSP 763/863 Assessment of Personality and Behavior 3 cr.

Provides an introduction to personality and behavioral assessment techniques. Prerequisite: For approved school psychologist candidates or permission of the instructor.

EDSP 766 Biological Bases of Behavior 3 cr.

Explores basic neuroanatomy, neurophysiology, and psychopharmacology as the bases of behavior, cognition, and affect.

EDSP 781/981 Special Topics 3 cr.

EDSP 789 Advanced Psychometric Theory 3 cr.

The purpose of this course is to help students obtain knowledge and understanding of the components of psychometric theory and to develop analysis, synthesis, and evaluation skills which will allow them to deal with existing instruments, refine existing measurement instruments, and develop new instruments.

EDSP 795 Thesis 3 cr.**EDSP 804 Advanced Educational Psychology 3 cr.**

An upward extension of educational psychology with a systematic review of current research and learning theory with emphasis on classroom applications, including studies of the organization, administration, and operation of schools.

EDSP 812 Cognitive Assessment 3 cr.

Provides school psychology students with the knowledge and skills needed to administer, score, and interpret selected individually administered tests of intelligence. Prerequisite: For approved School Psychology candidates.

EDSP 813 Academic Assessment 3 cr.

Provides school psychology students with the knowledge and skills needed to administer, score, and interpret selected individually administered tests of academic skills. Prerequisite: For approved School Psychology candidates.

EDSP 814 Advanced Assessment of Low Incidence Disabilities 3 cr.

Advanced Assessment of Low Incidence Disabilities provides the school psychology student with the knowledge and skills needed to administer, score, and interpret selected individually-administered tests of cognitive, academic, adaptive, and developmental functioning in populations with low incidence disabilities (e.g., Developmental Delays, Autism Spectrum Disorders, Speech or Language Impairment, Intellectual Disabilities, Visual Impairment, Physical Impairment, Traumatic Brain Injury). Students will become familiar with multi-cultural issues related to the assessment and diagnosis of low incidence populations. Prerequisite: EDSP 812 and EDSP 813.

EDSP 817 Applied Educational Research Methods 3 cr.

Develops skills needed to engage in applied educational research using standard experimental research and evaluation designs, typical measurement approaches, and parametric statistical procedures. A practical problem presentation mode enhances an integrated holistic approach to design, sampling, measurement, statistics, hypothesis testing, and interpretation of results. A microcomputer statistical package is used to assist in the analysis of data.

EDSP 818 Instructional Consultation 3 cr.

Reviews the basic principles of the consultative process as applied to working with teachers and school-based problem-solving teams to help students with academic problems. Students will be expected to demonstrate skill in consultative interviewing regarding academic problems, problem identification, data gathering relevant to both curriculum and the classroom

environment, and intervention design, execution, and evaluation in pre-kindergarten through high school settings. Prerequisites: For approved school psychology candidates; must have taken or take concurrently with EDSP 812 and EDSP 813; permission of instructor.

EDSP 849/949 Advanced Practicum in School Psychology and Supervision 3 cr.

Involves a series of opportunities for students to practice clinical and supervisory skills in a highly structured university clinic setting. Based on their level of training and experience, students are required to demonstrate distinct skills related to (1) organization and dynamics of the educational process; (2) assessment for intervention; (3) direct and indirect intervention methods; and (4) supervision of the clinical practice of other school psychologists. Students enrolling in EDSP 849 will enroll twice for a total of 6 semester hours, while doctoral students enrolling in EDSP 949 will enroll for 3 semester hours. Students must earn a grade of B or better in order to advance in the program. Prerequisite: Grade of A or B in all core courses. EDSP 849 is for approved School Psychology Certificate and doctoral students and EDSP 949 is for approved School Psychology doctoral students.

EDSP 852/952 School Psychology Internship 3 cr.

Involves a supervised field experience in a public school setting for a minimum of two consecutive semesters, three credits each semester (3c-01-3sh), which are typically taken immediately after the student's last term of coursework. Students must accumulate a minimum of 1200 clock hours during their internship experience. Throughout this experience, students will have the opportunity to apply their understanding and skills in the general practices of school psychology, which has been developed throughout their courses in the program. Approved school psychologist certification candidates must pass all core coursework prior to enrolling in the internship course. Therefore, they must earn a "B" or higher in all core courses and all "incomplete" grades must be resolved prior to starting internship. Students must also successfully complete the comprehensive exams before starting their internship experience. Prerequisite: EDSP 852—Approved school psychologist certification candidates must pass all core coursework prior to enrolling in the internship course. Therefore, they must earn a B or higher in all core courses and all incomplete grades must be resolved prior to starting the internship. Students must also successfully complete the comprehensive exams before starting their internship experience. EDSP 952—Approved school psychology doctoral candidates must pass all core coursework prior to enrolling in the internship course.

EDSP 911 Legal and Ethical Principles in School Psychology 3 cr.

Explores major federal and state laws and regulations that govern the practice of psychology, particularly as practiced by school psychologists, as well as established ethical principles of major professional organizations. Laws and regulations related to based and special education and behavior analysis of mental health and behavioral health services in schools and community agencies are addressed. Students are familiarized with the ethical principles of the American Psychological Association, the National Association of School Psychologists, and other national and state-wide organizations.

EDSP 915 Doctoral Seminar in Applied Educational Research 3 cr.

Develops skills needed to engage in applied educational research using clinical and practical research/evaluation designs, measurement approaches, and nonparametric statistical procedures.

A practical problem presentation mode enhances a consolidation of design, sampling, measurement, nonparametric statistics, hypothesis testing, and interpretation of results. Microcomputer statistical package use assists in the analysis of data. Prerequisite: EDSP 816.

EDSP 916 Doctoral Seminar in Advanced Educational Research 3 cr.

Provides an overview of complex educational research and evaluation designs, measurement approaches, statistical procedures, hypothesis testing, and interpretation of results. Topics include the philosophy and ethics of research, mixed hierarchical design, profile analysis, factorial validity estimation, factor analysis, multivariate analysis of variance, discriminant function analysis, path analysis, meta-analysis, power, robustness, and randomization tests. Statistical packages will be used to assist data manipulation and analysis. Prerequisite: EDSP 915.

EDSP 942 Neuropsychology of Children's Learning Disorders 3 cr.

This course will examine the neuropsychological underpinnings associated with children's learning and behavior. The efficacy of various assessment approaches will be explored in diagnosing areas of strengths and weaknesses and the development of appropriate remedial interventions. Prerequisite: EDSP 952 (specialist Internship) or permission of Program Director.

EDSP 945 Clinical Supervision in Psychology 3 cr.

This course provides an introduction to theories, models, techniques, relationships, processes of supervision, and evaluation of supervisees in the field of psychology. Students will gain the knowledge, basic skills, and self-awareness necessary to engage in consultation, negotiation/mediation, and systems level intervention in mental health and educational systems. Current legal and ethical implications are considered. Prerequisite: Designated by Doctoral Program Coordinator.

EDSP 953 Child Neuropsychology 3 cr.

Examines brain-behavior relationships and neurodevelopmental functioning in children. Discusses the neuropsychological principles necessary to assess the educational, cognitive, and behavioral functioning of children in relation to the development of remedial programs. Prerequisite: EDSP 812 or permission of the instructor.

EDSP 964 Seminar in School Psychology I 3 cr.

An examination of practices, trends, and issues in a specialized area of diagnosis. Areas to be examined are based on the predetermined interests of the students and the expertise of the available faculty. Prerequisite: Permission of instructor.

EDSP 965 Seminar in School Psychology II 3 cr.

An examination of practices, trends, and issues in a specialized area of treatment or remediation. The areas to be examined correspond to those covered in EDSP 764. The focus of the seminar is to develop the student's understanding and skills in implementing appropriate treatment and remedial strategies in home, school, and clinic settings. Prerequisite: Permission of the instructor.

EDSP 975 Supervision of Pupil Services 3 cr.

Provides participants with knowledge and skills related to the supervision and evaluation of pupil

services workers in the public schools (i.e., school psychologists, counselors, nurses, home-school visitors). Topics include supervisory skills, evaluation formats, and functions of the pupil services director, including needs assessment, program evaluation, data management, and hiring of new staff. Legal and ethical issues related to pupil service functions are addressed.

EDSP 977 Seminar in Family-School Relations 3 cr.

Focuses on selected aspects of a wide range of issues related to the contemporary American family as they affect the behavior of children and their functioning within the public schools. Parent consultation and training strategies are emphasized. Prerequisite: Permission of the instructor.

EDSP 978 School Counseling Practicum 3 cr.

Involves supervised practice of professionals engaging in the delivery of counseling services. Designed to develop students' counseling skills through application of skills learned in prerequisite courses. The primary emphasis is on performing counseling and related activities in a field-based placement, likely a school setting. Comprises both on-campus and field-based experiences. Prerequisite: EDSP 745 Counseling for School Psychologists

EDSP 994 Introduction to the Dissertation 3 cr.

Designed to introduce students to the dissertation and the dissertation process; university and department policies and procedures related to the dissertation; and resources across the university for engaging in research; as well as facilitate topic selection; review of the literature; and Institutional Review Board (IRB) requirements and procedures. By the end of this course, students will have chosen an advisor (if not done so already) and committee, completed several of the initial requirements of the dissertation process, as well as produced a reasonable and appropriate timeline for completion of the dissertation and the degree. Prerequisite: Doctoral candidacy.

EDSP 995 Dissertation 9 cr.

*Indicates dual-listed class

EDUC: Education

Department of Professional Studies in Education
College of Education and Communications

EDUC 552/* Teaching of English and Communication in the Secondary School 3 cr.

A prerequisite to student teaching in English. Introduces current professional practices in the teaching of English and communications in secondary school. Prerequisite: ENGL 314, 323, 324 (or approved equivalents) and admission to Step 1 of the 3-Step Process

EDUC 581 Special Topics 1-3 cr.

EDUC 590 Improving Professional Practice in Instructional Settings 1-3 cr.

and

EDUC 591 Improving Professional Practice in Instructional Settings 1-3 cr.

Reviews current research in instructional practices, motivational techniques, and professional issues. May focus on any of these aspects of teaching, learning, or professional practice. May be presented with a kindergarten through grade twelve, elementary, middle school, secondary, or adult orientation. Offered only for continuous professional development and may not be applied toward a graduate degree. Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

EDUC 858 School Law and Negotiations 3 cr.

An understanding of legal principles as they pertain to functions of personnel in public school systems and to persons engaged in education. Study of statutory enactments, review of court actions through case studies, and analysis of collective negotiation law.

EDUC 702 Reading Practicum: Diagnostic Case 3 cr.

EDUC 703 Reading Practicum: Remedial Case 3 cr.

EDUC 731 Curriculum Development 3 cr.

Students learn curriculum development by differentiating among educational goals, objectives, and learning activities. Sources of curriculum goals and objectives, such as needs assessment, philosophical models, and psychological models are studied. The design and selection of learning activities, as well as designs for evaluating the effectiveness of curriculum, are considered.

EDUC 751 Recent Issues and Innovations in Education 3 cr.

Newer trends in classroom procedure, equipment, and materials, as well as problems involved in improvement of instruction. Whenever possible, sessions are held to demonstrate and use recently developed materials. Individual research and field trips involve many of the new programs in elementary education.

EDUC 752 School Evaluation 3 cr.

Current models for both formative and summative evaluations are presented with emphasis on their application to school programs and other educational projects. Prior knowledge of curriculum development and/or project proposals is helpful but not required.

EDUC 781 Special Topics 1-3 cr.

ELED: Elementary Education

Department of Professional Studies in Education
College of Education and Communications

ELED 581 Special Topics 3 cr.

ELED 590 Improving Professional Practice in Instructional Settings 1-3 cr.

and

ELED 591 Improving Professional Practice in Instructional Settings 1-3 cr.

Reviews current research in instructional practices, motivational techniques, and professional

issues. May focus on any of these aspects of teaching, learning, or professional practice. May be presented with a kindergarten through grade twelve, elementary, middle school, secondary, or adult orientation. Offered only for continuous professional development and may not be applied toward a graduate degree. Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

ELED 642 Mathematics in Elementary School 3 cr.

Experiences with manipulative materials, games and puzzles, activity centers, and lab approach to mathematics. Inexpensive mathematics lab equipment will be constructed. Sources of literature and materials are presented and used. Opportunities are given to write activity and problem cards and to plan mathematics activity centers. Psychological foundations and mathematics structure are used as reference for suggested activities and curriculum studies.

ELED 681 Special Topics in Education 3 cr.

Designed for the students who wish to do independent research in special areas.

ELED 698 Supervised Internship 6 cr.

A carefully planned, field-based, internal work experience proposed by the advanced graduate student to extend professional competence, subject to approval by advisory committee. Registration by permission only.

ELED 699 Independent Study in Elementary Education 1-3 cr.

Students select one or more topics which are of critical importance in elementary education and meet staff members for independent reading, study, analysis, and evaluation. Registration only by permission of Graduate Committee.

ELED 743 Resource Materials in Elementary Science 3 cr.

Introduces underlying philosophy and use of materials of several of the current national curriculum programs in elementary science. Emphasizes the following programs: (1) Science: A Process Approach (SAPA); (2) Elementary Science Study (ESS); (3) Science Curriculum Improvement Study (SCIS); and (4) Conceptually Oriented Program in Elementary Science (COPES), including microteaching techniques and development and preparation of individualized self-instruction modules. Students are required to work with various program materials.

ELED 755 Developmental Influences on Children's Learning 3 cr.

Examines the physical, cognitive, social, and emotional development of children and the impact of development on learning processes. Students will discuss, analyze, and apply developmental theory and research to address issues confronting contemporary early childhood and elementary practitioners. Final projects will emphasize collaboration with professionals in other fields who work with children, families, and educators. Prerequisite: Permission of advisor.

ELED 781 Special Topics 3 cr.

ELED 795 Thesis 3 cr.

For the student writing the thesis. Should be scheduled for the semester in which the student plans to complete his/her work. All thesis writing involves a committee composed of the student's advisor and two additional faculty members.

ELED 798 Supervised Doctoral Internship 3 cr.

Applied field experience chosen by doctoral students with the approval of the dissertation advisory committee. Prerequisite: Permission only.

ELED 995 Dissertation 1-12 cr.

Students preparing a doctoral dissertation for credit must register for this course. Number of credits assigned and the extent of time for which research activity is scheduled depend on nature and scope of student's research problem and his/her general doctoral program.

NOTE: Credits for both thesis and dissertation, if not completed during the semester scheduled, are recorded as a grade of "R," research in progress. They remain so until the project is approved. They do not automatically revert to the grade "F" in a specific length of time. Also, thesis and dissertation credits can be programmed above the regular load.

ELMA: Elementary and Middle School Mathematics

Department of Mathematics

College of Natural Sciences and Mathematics

ELMA 517 Introduction to Probability and Statistics 3 cr.

Introduces students to elementary concepts of probability which will enable them to analyze data, make predictions, and determine what concepts may be used with children. Prerequisite: MATH 152 or equivalent.

ELMA 520 Pre-Calculus Mathematics I 3 cr.

Examines the function concept as applied to elementary real-number functions and graphing techniques for these functions. Topics include real-number functions, such as absolute value, step, linear, quadratic and other polynomial functions, trigonometric and other periodic functions, exponential, logarithmic functions, and all other inverse functions. Students will examine curricular materials that develop function concepts in grades K-8. Prerequisite: MATH 152 or equivalent.

ELMA 556 Geometry for Elementary/Middle Level Teachers 3 cr.

Students become acquainted with an informal, intuitive approach to geometry. Activities and materials for teaching geometrical concepts to children are an integral part of the course. Prerequisite: Enrolled in Master of Education in Elementary and Middle School Mathematics Education or permission of instructor.

ELMA 557 Introduction to Number Theory 3 cr.

Introduction to topics in elementary number theory, including basic operations and properties of integers; divisibility properties of integers; modular arithmetic and congruence's; diophantine equations; interesting relationships among numbers; applications of number theory in elementary school mathematics. Prerequisite: MATH 152 or equivalent.

ELMA 558 Introduction to Logic and Logical Games 3 cr.

Introduction to some basic ideas, terminology, and notation of logic. Topics considered: symbolic logic, with special emphasis on algebra of propositions; applications of Boolean algebra, such as algebra of sets and switching circuits; introduction to quantification theory and its value in determining validity of mathematical arguments, inference schemes, and logical puzzles; and consideration of other topics in logic suitable for a K-8 mathematics curriculum. Prerequisite: MATH 152 or equivalent.

ELMA 559 Computer-Related Topics in the Elementary and Middle School 3 cr.

Provides teachers with the concepts and techniques necessary to teach computer-related topics to children in the elementary and middle schools. Prerequisite: MATH 152 or equivalent.

ELMA 561 Discrete Mathematics for Elementary/Middle Level Teachers 3 cr.

Topics in discrete mathematics, including systematic counting, graph coloring, networks, and their applications, as well as the historical background and the role of discrete mathematics in today's world. Uses a problem-solving, hands-on approach to content. Explores curricular materials, resources, and activities relevant to teaching discrete mathematics at the Elementary/Middle Level. This is a dual level course. Prerequisite: Enrolled in Master of Education in Elementary and Middle School Mathematics Education, or permission of instructor.

ELMA 571 Algebra for Elementary/Middle Level Teachers 3 cr.

Topics include multiple representations of sequences, integers, expressions, equations, systems of equations, inequalities, and matrices. Representations of expressions and equations will be employed through the use of hand-on and visual aids and with appropriate technology. Connections will be made with the teaching and learning of algebraic concepts at the Elementary and Middle Level. Prerequisite: Enrolled in Master of Education in Elementary and Middle School Mathematics Education or permission of instructor.

ELMA 581 Special Topics 3 cr.

Special Topics which go beyond the scope of regular offered courses. Offered on basis of student interest and available staff. The student may take more than one Special Topics offering with the written approval of the advisor. Prerequisite: MATH 152 or equivalent.

MAED 650/ELMA 650 Curriculum and Instruction in Mathematics Education 3 cr.

The purpose of this course is to familiarize the K-12 teacher with the philosophical and psychological issues that guide the development of mathematics curricula. Topics include a history of the development of mathematics curriculum; innovative curricula that have had impact on teaching and learning; state and national standards and their impact on mathematics curricula; methods of implementing a contemporary program; and analysis of current curricula. Prerequisite: Appropriate major or permission of the instructor.

ELMA 652 Diagnosis and Remedial Teaching of Mathematics 3 cr.

Examines why some children have difficulty in learning mathematical concepts and presents tools and techniques for diagnosing and remediating common difficulties in elementary and

middle school mathematics. Valuable for those teaching in elementary, middle school, or remedial programs. Prerequisite: Methods course in teaching mathematics or consent of instructor.

ELMA 653 Mathematics for the Gifted Student 3 cr.

Examines different approaches for mathematically gifted students. Students become familiar with resources and elementary programs designed for use in either regular classrooms or special classes for the gifted. Prerequisite: Methods course in teaching mathematics or consent of instructor.

ELMA 654 Teaching Problem Solving in the Elementary and Middle School 3 cr.

This course is intended to teach teachers how to become better problem solvers and teaches problem-solving pedagogy appropriate for the K-12 mathematics classroom. Prerequisites: Appropriate major or permission of the instructor.

MAED 654 Teaching of Problem Solving in Mathematics Education

This course is intended to teach teachers how to become better problem solvers and teaches problem-solving pedagogy appropriate for the K-12 mathematics classroom. Prerequisites: Appropriate major or permission of the instructor.

ELMA 655 Mathematics for Early Childhood 3 cr.

Studies child-centered, activity-oriented mathematics programs for early childhood education. Focuses on implementing research to help children develop understanding and insight into basic concepts of mathematics through the use of manipulative materials. Topics include pre-number activities, number activities, numeration, operations on whole numbers, estimation, rational numbers, geometry, measurement, probability, statistics, and problem solving. Prerequisite: MATH 152 or equivalent.

ELMA 681 Special Topics 3 cr.

Special Topics which go beyond the scope of regularly offered courses. Offered on basis of student interest and available staff. The student may take more than one Special Topics offering with the written approval of the advisor. Prerequisite: Methods course in teaching mathematics or consent of instructor.

ELMA 698 Supervised Internship 3 cr.

A professional work experience in a cooperating school district under the supervision of designated public school personnel, subject to review and evaluation by a university faculty member. Registration by permission only.

ELMA 699 Elementary Math—Independent Study 1-6 cr.

Under the guidance of a faculty member, a student may study some area of mathematics or mathematics education not covered in the regular courses.

ELMA 795 Thesis 3 cr.

ELR: Employment and Labor Relations

Department of Employment and Labor Relations
College of Health and Human Services

ELR 511/HOSP 511* Contemporary Issues in Hospitality 3 cr.

Discussion of contemporary issues within the hospitality industry. Students write a series of opinion/reaction papers to present discussion topics.

ELR 526/* Case Studies in Labor-Management Relations 3 cr.

Study of labor-management relationships in a variety of organizational settings through utilization of the case study technique.

ELR 580 /* Introduction to Negotiations and Conflict Resolution 3 cr.

Deals with negotiations and conflict resolution techniques. Introduces students to current concepts and theories of negotiations and resolving conflict and their application generally to everyday issues. Prepares students to engage in these techniques in workplace issues such as collective bargaining, negotiating contracts and agreements internally as well as externally.

ELR 581 Special Topics in Employment and Labor Relations 3 cr.

According to student demand, special graduate course on selected topics.

ELR/HSAD 610 Employee Rights under Law 3 cr.

Provides a review of the major legislative rights and benefits available to employees under law in terms of their impact on labor and management in the employment relationship. The main focus will be the analysis and application of state and federal employment laws.

ELR 612 Labor Relations Practice and Administration 3 cr.

Practice and administration of labor relations, focusing on the operation and internal relationships of the individuals involved and upon the application of labor relations skills.

ELR 613 Fundamentals of the American Labor Movement: Theory and Practice 3 cr.

Introduction to terms, theories, and practice of employment and labor relations in the United States.

ELR 615 Dispute Settlement 3 cr.

Review of the theories underlying and legislation supporting labor arbitration, emphasizing development of advocacy skills through simulations of actual disputes.

ELR/HSAD 616 Health Law 3 cr.

Focuses on legal language, tort law, legal issues, and legal sanctions of state and national health care laws as applied to individuals and organizations. Through lectures, discussions, readings, and presentations, students will learn to solve problems of health care administration within the current health care legal system and develop an understanding of the legal issues present within the current health care field.

ELR 618 Seminar: Current Issues in Employment and Labor Relations 3 cr.

Detailed examination of current professional issues in the field.

ELR/HSAD 619 Advanced Research in Employment Relations and Health Services Administration 3 cr.

Provides students with the advanced knowledge needed to understand the process of research development, effectively evaluate research studies, interpret common statistical information, use the statistical package for social sciences, and develop and execute a research project.

ELR 621 Labor Relations in the Public Sector 3 cr.

Developments in federal, state, and local labor relations, including Presidential orders and federal agencies; survey of the states; Pennsylvania Acts 111 and 195; effects of public sector fact-finding; and arbitration.

ELR 622 Discrimination in Employment 3 cr.

Investigation of employment discrimination in the United States with special attention to the roles of government, industry, and labor and the impact of federal intervention since 1960.

ELR 624 Comparative Labor Relations 3 cr.

International dimensions of labor relations are explored by examining the labor-management relations in a foreign country or region.

ELR 625 Processes of Collective Bargaining 3 cr.

Survey of current laws, principles, and procedures in use in modern collective bargaining and evolving trends.

ELR/HSAD 631 Human Resources Management in the Public Sector 3 cr.

Provides students with an in-depth analysis of human resource management with a special examination of public sector organizations. Emphasizes the job functions and issues facing the human resource professional and organizations. Course topics include the current environment in human resources, the acquisition and preparation of human resources, the assessment and development of Human Resource Management (HRM), the strategies involved in compensation administration, and collective bargaining and labor relations issues in the public sector.

ELR 632 Compensation Administration 3 cr.

Study of the field of compensation management and benefits administration in the public and private sectors. Special emphasis on the input of collective bargaining in the development and administration of compensation and benefit systems and the necessary skills to function as a professional in the field.

ELR 640 Negotiations 3 cr.

A course on negotiations theory and practice which applies negotiations strategies from a variety of fields in hands-on simulations of collective bargaining in labor relations.

ELR 641 Contract Administration 3 cr.

Analysis of the practices and responsibilities of labor and management in the mutual performance of a collective bargaining agreement with primary attention given to the process of grievance resolution.

ELR 642 Concerted Activity 3 cr.

Examines the various strategies and tactics available to the parties in confrontational situations. Emphasizes the statutory limitations set forth in the Labor Management Relations Act relating to topics such as picketing, consumer appeals, and boycotts.

ELR 650 Alternative Work Styles 3 cr.

Review of efforts to increase worker participation in certain levels of managerial decision making in private and public production or service enterprise, through shares in ownership, seats on boards, quality circles, and other participative structures. Results are considered from the point of view of productivity, worker satisfaction, and social utility.

ELR 681 Special Topics in Employment and Labor Relations 3 cr.

According to student demand, special graduate courses on selected topics.

ELR 698 Internship 3 or 6 cr.

Field experience in employment and labor relations. An internship log and term paper are required.

ELR 699 Independent Study 3 cr.

Students select one or more topics of critical importance in employment and labor relations and meet with faculty member for independent reading, analysis, and evaluation. Prerequisite: Approval of department chairperson, college dean, and provost.

ELR/HSAD 751/851 Conflict Resolution 3 cr.

Provides students with an in-depth analysis of conflict resolution in many settings, primarily in the employment relationships. The student will be exposed to the current environment surrounding conflict resolution; the legal, ethical, and emotional issues that are common in disputes; and the format by which employment disputes are resolved.

ELR 795 Thesis 1 to 6 cr.

For students writing the thesis, ELR 850 should be scheduled for the semester in which they plan to complete their work. The thesis is a committee thesis (1 to 6 semester hours).

*Indicates dual-listed class

ELTC: Elementary Teacher Certification

Department of Professional Studies in Education
College of Education and Communications

ELTC 660 History, Philosophy, and Ethics in Elementary Education 3 cr.

Traces the purposes and impact of major educational philosophies on elementary education throughout history. Candidates for elementary teacher certification will examine personal

assumptions about the process of education, develop understanding of the contributions and limitations of various educational philosophies, analyze values and practices in the field, and apply these insights as they fulfill the role of elementary school teacher. Prerequisite: None.

ELTC 661 Integrated Curriculum in the Elementary School 3 cr.

Study of educational programming and curricular initiatives designed to meet the learning needs of elementary school children, kindergarten through sixth grade. Candidates for elementary certification at the graduate level will examine principles of curriculum design and effective ways of integrating subject matter in the elementary school as well as compare/contrast elementary curriculum from various districts, states, and countries. Students are required to design a unit that emphasizes literacy and integrates the fine arts with the traditional content areas of the curriculum. Prerequisite: None.

ELTC 664 Assessment of Student Learning and Elementary Curriculum 3 cr.

Examines issues and strategies affecting the assessment of the five-to-ten-year-old child's physical, social, emotional, cognitive, and aesthetic development and the evaluation of elementary curriculum. Naturalistic observation, rating scales, standardized tests, state academic standards, teacher-constructed tests, portfolio assessment of children's work, and program evaluation will be emphasized.

Prerequisite: None.

ELTC 665 Issues in Elementary Education and Pedagogy 3 cr.

Designed to orient graduate students seeking elementary teacher certification to general teaching methods, pedagogical perspectives, and instructional practices suitable for children in the elementary grades. Candidates will acquire skills in identifying significant issues in elementary education by using problem-solving strategies, communicating ideas, and functioning as change agents in educational institutions. Interpersonal skills and collaborative relationships with colleagues, families, communities, and agencies will be emphasized. Prerequisite: None.

ELTC 670 Practicum I (Social Studies, Citizenship, Multicultural Education, and Diversity) 3 cr.

A field-based course that examines the teaching of social studies from a multicultural education and diversity perspective. Students will demonstrate their understanding of these principles through the design and implementation of lessons that meet the standards of national professional organizations in social studies, citizenship, and multicultural education for elementary students. Prerequisite: None.

ELTC 675 Practicum II (School Law and Professional Practice) 3 cr.

A field-based course that focuses on legal issues in the elementary school context and supports the professional development of novice teachers. Students will demonstrate knowledge of school law precepts that govern professional practice and document their professional growth throughout the program in a teacher portfolio. Prerequisite: Permission.

ENGL: English

Department of English
College of Humanities and Social Sciences

ENGL 463/563 Topics in Global Literature and Film 3 cr.

Examines major works in English of a particular topic in global literature and/or film by focusing on the transnational contexts of history and culture surrounding the production and/or reception of literature and film. Topic of global literature and/or film to be announced in advance.

Prerequisite: ENGL 202.

ENGL 515 English Language Studies for Teachers 3 cr.

Focuses on the fundamentals of language study with equal emphasis on the sound, the word, the sentence, the meaning, and the discourse patterns of English as they manifest in daily lives. Educationally relevant topics, such as applications of sociolinguistics to the teaching of English Language and Literature, varieties of grammar, and linguistic descriptions of styles and registers are an integral part of the course.

ENGL 518 Young Adult Literature 3 cr.

Offers prospective secondary English teachers a survey of the literature adolescents choose to read, enjoy, and find relevant to their lives. Includes literature that offers psychological and sociological perspectives on adolescents.

ENGL 526/* ESL Methods and Materials 3 cr.

An introduction to English as a Second Language theory and practice. Aims: (1) general understanding of current theory and methods of teaching ESL; (2) ability to select appropriate, and adapt existing, materials for elementary and high school ESL students. Recommended for all English teachers who expect to have ESL students in their classes.

ENGL 581 Special Topics in Language and Literature 1-3 cr.

Allows students to pursue subjects such as textual criticism, prosody, and computers and literature not covered in existing courses.

ENGL 614 Critical Pedagogy in English Education 3 cr.

Offers students a broad range of theories that help to shape and inform pedagogy—and ultimately their classroom practice in the secondary English language arts. Topics can include an overview and introduction to critical theory, critical race theory, sociocultural theory, transactional theory, cultural theory, transformative learning theory, queer theory, social justice theory (including students with special needs), spatiality/hybridity theory, identity theory, constructivism, second language theory, feminism, and new literacy studies; and as new, cutting edge theories evolve, they may also be included. Students will explore myriad ways of turning theory into practice through course readings, activities, student teaching, discussions, and small- and large-group cooperative learning. This course is required for MA/TE students and could be a master's elective with advisor consent for students seeking coursework in critical pedagogy.

ENGL 625 Introduction to TESOL 3 cr.

Introduces key concepts in teaching English as a second or foreign language. Offers a broad introduction to the knowledge and skills needed to become a professional teacher of ESL or EFL and prepares students for the remainder of the MA/TESOL program. Students are expected to improve their language ability as well as their research and presentation skills in this course. Required for MA/TESOL students in their first semester.

ENGL 630 Research on the Teaching of Literacy and Literature 3 cr.

Examines theory and research in literacy, reading and responding to literature and other forms of writing, and the teaching of young adult and other relevant works of literature. Includes application of theory and research to classroom practices.

ENGL 632 Composition Theory and Practice 3 cr.

A study of current theories of composition and ways those theories might be enacted in the composition classroom for students who will teach on the postsecondary level. Time in the course will be spent on both discussion of readings of theoretical texts and development of teaching activities based upon those theories. The course will include an historical overview of the discipline, focusing on process and post process theories for teaching composition that have emerged since the publication of Peter Elbow's seminar *Writing without Teachers* (1973).

ENGL 641 Topics in ESL Pedagogy 3 cr.

Explores a single topic in depth. Topics, announced in advance, include such areas as ESL Testing, Teaching Listening Comprehension for ESL Students, Teaching English for Specific Purposes, and Teaching Writing for ESL Students.

ENGL 643 ESL/TEFL Methodology 3 cr.

Surveys current theory and practice in teaching English to non-native speakers and includes traditional and innovative approaches, design, and procedures for teaching all language skills at various educational levels.

ENGL 644 ESOL Teaching Methodology, Materials, and Instructional Technology 3 cr.

This course surveys current theory and practice in teaching English to non-native speakers. It includes traditional and innovative approaches for integrating instructional technology and multimedia, designing of classroom materials for specific purposes, and preparing procedures for teaching all language skills at various educational levels. This is meant to heighten awareness of unequal social hierarchies that may be embedded in approaches, materials and media used in the classroom. Prerequisite: None.

ENGL 649 Introduction to Research in Applied Linguistics and TESOL 3 cr.

Explores the basic concepts and methods of conducting and reading research. This course will use a textbook to introduce these basic concepts and will practice their usage within the framework of the class. This course is designed to prepare students for the process of writing an MA Thesis and read and conduct research. Within the framework of this course, each student will define a research question of personal interest, collect suitable research articles, write and present a literature review and finally write and present a provisional MA Thesis proposal to the MATESOL faculty.

ENGL 674 Research Trends in English 3 cr.

Practical training in special methods and materials of research in English.

ENGL 675 Literature and the International Student 3 cr.

Develops the reading, writing, listening, and speaking skills needed for success by the international student in the graduate study of literature in the American university. Examines the principles of literary analysis, research, and documentation in the United States and orients the student to the American library system and the American college classroom.

ENGL 676 Critical Approaches to Literature 3 cr.

Focuses on theoretical and applied approaches to literary criticism. Introduces such approaches as they have been historically developed and are currently practiced and considers how familiarity with a variety of critical methods enhances the appreciation and teaching of literature.

ENGL 681/781/881 Special Topics 3 cr.

Courses relating to specialized interests in literature, rhetoric, or linguistics which fulfill special needs or interests. May become permanent course offerings.

ENGL 688 Practicum in TESOL 3 cr.

Intended to provide a balance between observation and practical teaching experience. Students plan, teach, and reflect on lessons. Emphasis is placed on application of theory and pedagogical knowledge gained from course work, as well as on developing skills to reflect on teaching and its consequences for learners. Class size is limited to fifteen students. Although not a prerequisite, this course can be used as a way to prepare for a teaching internship.

ENGL 690 Writing as a Way of Learning 3 cr.

Examines the theoretical relationship between thought and writing, with specific attention to ways this relationship underlies learning in all disciplines. The course, which functions as part of the Southcentral Pennsylvania Writing Project, involves reading, writing, and demonstration of pedagogical methods.

ENGL 692 American English Grammar 3 cr.

The study of phonology, morphology, syntax, and semantics of present-day American English, using various approaches to the analysis of grammar and usage.

ENGL 693 Seminar in Teaching English in the Secondary School 3 cr.

Explores recent developments in teaching of language, composition, and literature.

ENGL 694 Observation in Teaching English 3 cr.

Surveys instruments to observe classroom teaching behavior and provides practice in the use of observation instruments. Surveys research on classroom teaching and design. Emphasizes awareness of teaching behaviors and their consequences in English classrooms for native and non-native speakers of English.

ENGL 696 Internship in ESL/EFL 3 cr.

Consists of one semester of supervised teaching, tutorial activities, and materials preparation for non-native English-speaking students. The purpose of the practicum is to demonstrate the candidate's preparation for teaching English as a second or foreign language.

ENGL 698 Internship 3 cr.

Practical experience in the student's area of interest, working under professional supervision on the job. Special permission only, dependent upon needs of student's program as well as personal and academic qualifications.

ENGL 699 Independent Study 1-3 cr.

Study in depth of topics not available through regular course work. Student works with supervising professor on carefully planned, student-initiated project. Prior approval necessary.

ENGL 703/803 Language and Cognition 3 cr.

Examines areas where language, thought, and cognitive process interact. Studies the essential nature of meaning and mental concepts, the core characteristics of language, and the complex relations between the two domains.

ENGL 705/805 Language and Social Context 3 cr.

Introduces the study of language as a social phenomenon, including such topics as language varieties, stereotypes, and social identity; language planning and language policy; standard and nonstandard usage; censorship; discourse analysis; language attitudes; language, culture, and thought; communicative competence; small group communication; and classroom interactions.

ENGL 723/823 Second Language Teaching 3 cr.

Considers trends, issues, and research in second language teaching and assessment; also considers ways teachers can explore teaching beliefs and practices.

ENGL 724/824 Second Language Acquisition 3 cr.

Introduces current research in second language acquisition, especially of English. Focuses on prominent research trends in the study of the language learner, the process of acquisition, and the interaction of learner, language, and context.

ENGL 725/825 Second Language Literacy 3 cr.

Studies theory, research, and pedagogy associated with the development of literacy in two languages, either simultaneously or successively. Focuses on how individuals and groups become literate in English as an additional or second language. Includes explorations of political, cultural, social, and contextual, as well as cognitive, textual, and educational, issues that arise in acquiring and using a second literacy. Open to MA/TESOL and PhD students in Composition and TESOL.

ENGL 730/830 Research and Practice in the Teaching of College Composition 3 cr.

Applies research in composition, rhetoric, and writing studies to the teaching of college composition in diverse contexts and with diverse student populations, including multilingual writers. Links research based-practices to curriculum design. The course covers best teaching

practices such as responding to writing, performing assessment, and interacting with students in the college composition classroom.

ENGL 734/834 Linguistics and the English Teacher 3 cr.

Examines four key topics: foundations of linguistic thought, applications of linguistics to the teaching of English, classroom discourse patterns, and language pedagogy.

ENGL 742/842 Cross-Cultural Communication 3 cr.

Investigates cultural behaviors, assumptions, values, and conflicts surrounding communication across cultures in the context of teaching English as a second or foreign language at all levels.

ENGL 744/844 Reading Theory and the College English Teacher 3 cr.

Examines the psycholinguistic and ethnographic research on the fluent reading process of native and non-native college readers, as it pertains to the teaching of reading and writing for academic purposes.

ENGL 747/847 Identity, Power, and the Multilingual Writer 3 cr.

This course addresses understandings of current theories on identity as they relate to multilingual writers and develops the ways these theories can be used to analyze processes of identity construction in relation to writers and writing. It explores theories and definitions of identity as fluid, dynamic, and co-constructed in interactions, including writing. It addresses how issues related to notions of power and ownership of language are part of the larger social constructions of multilingual writers identities and considers how these identities are often indexed in both research about multilingual writing and in multilingual writing itself. Since identity will be addressed as a socially mediated construction, theories to examine these constructions are also addressed. Prerequisites: None

ENGL 749 Advanced Research Seminar 3 cr.

Prepares advanced MA TESOL students (Thesis) with the knowledge required to conceptualize, conduct and analyze a research project in the field of applied linguistics. The aim of this course is to learn about advanced concepts in research methodology and provide the thesis students with the research background that will allow them to successfully complete an extended research project. Prerequisites: ENGL 649: Introduction to Research in Applied Linguistics and TESOL, ENGL 625: Introduction to TESOL, and ENGL 644: ESOL Teaching Methodology, Materials, and Instructional Technology.

ENGL 753/853 Studies in Literature as a Profession 3 cr.

There are many ways in which students can prepare themselves to be competitive and successful when they enter the English literature professions. Focusing on the practical aspects of literature as a profession, this course will cover a variety of topics including the job market, publishing, defining a field of study, writing in relevant genres, and teaching. Although appropriate for any student in the master's or doctoral program, this course is aimed at those students seeking employment at the university level and/or those who are looking to develop their academic research and writing skills. The purpose of this course is to provide a space in which students can engage in intensive work on the project or projects of their choice while situating that work within broader scholarly and professional communities. Students will become fully immersed in the profession by studying the resources relevant to their chosen fields and careers. This course is

offered as an elective for MA and PhD students, and it will also fill the Research Skills requirement.

ENGL 754/854 World Englishes in Composition and Applied Linguistics 3 cr.

An interdisciplinary approach to understanding issues around World Englishes (WE) scholarship where teachers, researchers, teacher educators, and administrators from composition, developmental writing, writing centers, ESL/EFL K-16 and teacher educations contexts come together to explore and critique how English(es) is/are positioned around the globe, and how that impacts learning and teaching.

ENGL 756/856 Digital Literacy for the English Professional: A Domain of One's Own 3 cr.

Enables students to make professional choices by exploring the transformations of traditional conceptions of literacy as a consequence of the emergence of new media and digital networks. Fosters informed and critical production in the digital sphere, including how to control one's web presence; utilize web services and platforms; and compose and publish multi-modal projects. Facilitates literacy as a form of agency through workshops and projects. Satisfies the doctoral research skills requirement.

ENGL 757/857 Digital Composition, Literature, and Pedagogy 3 cr.

This course introduces students to the pedagogical issues at the intersections of literary studies, composition, and emerging digital technologies. Addressing history, theory, and teaching practice. Digital Composition, Literature, and Pedagogy: 1. explores the emerging conventions of writing for digital environments, giving students practice in conceiving, composing, and producing networked texts; 2. extends traditional skills of literary interpretation to emergent, digital genres, including both remediated/archival, print texts and contemporary, "born digital" e-literature; 3. familiarizes students with changes in the field, exploring exemplary projects of digital scholarship and how they can be integrated into teaching. Prerequisites: None.

ENGL 760/860 Teaching College Literature 3 cr.

Examines current research on teaching college literature and involves ongoing observation and practice of teaching strategies. Special attention is given to the impact of critical theory and such issues as canon, race, class, and gender in specific classroom settings.

ENGL 761/861 Topics in American Literature Before 1870 3 cr.

Studies major figures, movements, or topics in American literature from the Colonial Period through 1870. The content of the course will be determined by the individual instructor and announced in advance.

ENGL 762/862 Topics in American Literature Since 1870 3 cr.

Studies major topics, authors, and movements in American literature from 1870 to the present. Specific course content is chosen by the instructor and announced in advance.

ENGL 763/863 Topics in British Literature Before 1660 3 cr.

Studies major figures, movements, or topics within the period. The specific content of the course is determined by the instructor and announced in advance.

ENGL 764/864 Topics in British Literature Since 1660 3 cr.

Studies major figures, movements, and topics in British literature within the period 1660 to the present. Content of the course will be determined by the instructor and announced in advance.

ENGL 765/865 Topics in Literature as Genre 3 cr.

Examines one literary genre (such as novel, drama, or film), its development, and its current practice and theories. The course also surveys the major recent critical approaches to the genre.

ENGL 766/866 Topics in Comparative Literature 3 cr.

Introduces the theory and methods of comparative literary analysis. Topics include the relationships between literatures of different countries, between literary genres, and between literature and other related fields. The specific course content is chosen by the instructor and announced in advance.

ENGL 767/867 Research on Writing Centers and Writing Program Administration 3 cr.

This course examines the history, theory, and every day practices that surround writing centers and writing programs, including advances in writing across the curriculum and writing in the disciplines. Students will read key books and articles and develop a research project suitable for publication and presentation. Prerequisite: None.

ENGL 771/871 Topics in Postmodern Literature 3 cr.

Investigates the postmodern reaction to the modern literary tradition and the experimentation it engendered. Focuses on how postmodern critics and writers have responded to modernist manifestations of character, narrative, and theme and explores the critical, pedagogical, and philosophical implications and assumptions of postmodern literature, assessing its role in contemporary culture and thought.

ENGL 772/872 Topics in Women's Literature 3 cr.

Reexamines nineteenth-century works by women in light of feminist perspectives. Studies twentieth-century works within and outside feminine and feminist traditions. Also considers works by black, Chicano, Native American, and Asian-American women.

ENGL 773/873 Topics in American or British Minority Literature 3 cr.

Examines the literature of one or more American or British minorities (for example, Native Americans, immigrants, blacks, Chicanos). The focus and subject matter of the course will be chosen by the faculty member and announced in advance.

ENGL 781/881 Special Topics

ENGL 795 Thesis 6 cr.

ENGL 797/897 Independent Seminar 3 cr.

Selected readings and/or research in a specialized area of composition, criticism, and/or critical theory, literature, TESOL, linguistics, creative writing, cultural studies, literary translation, or literacy not normally covered by the curriculum in either track of the PhD in English. In consultation with a designated faculty member in the semester prior to registration, a student submits a complete syllabus for study and assessment in one of the areas listed above. The syllabus must be approved first by the faculty member and then by the director of the appropriate

graduate program. Course is delivered to individuals or small groups, either in residence or electronically, as determined by the instructor/program. May be repeated once with new content. Prerequisite: Permission of relevant program director(s) and instructor.

ENGL 799/899 Independent Study 1-3 cr.

An in-depth investigation of topic or area related to the student's doctoral program but not available through regular course work. Independent study is initiated by the student and supervised by a faculty member in the area of study. Prior approval by the director of the student's doctoral program is required.

ENGL 800 Research in Composition and Applied Linguistics 3 cr.

Introduces students to various types of research in Composition and TESOL for examining the transmission of literacy.

ENGL 808 Technology and Literacy 3 cr.

Presents an overview of the interrelationship between literacy and technology. Demonstrates approaches to teaching English using computer technology.

ENGL 815 Qualitative Research Methods in Composition and Applied Linguistics 3 cr.

Involves both reading about and training in qualitative research methods such as participant observation, interviewing, coding, and analysis. Also covers dissemination of research findings. Prerequisite: ENGL 800.

ENGL 831 Rhetorical Traditions 3 cr.

Studies how rhetorical traditions influence the teaching of composition. Examines how cultural factors such as history, politics, ideology, gender, race, and ethnicity affect the composing process. Encourages students to think of composition as an open, multicultural event of imagination and social innovation.

ENGL 833 Theories of Composition 3 cr.

Reviews the major theories of composition, especially those of the modern and postmodern eras. Examines how cultural factors such as education, history, politics, ideology, gender, race, and ethnicity affect the theorizing about composition. Encourages students to construct their own theories of composition by entering into a collaborative cultural and intellectual process.

ENGL 835 Research Design and the Craft of Writing 3 cr.

Presents students with the conceptual aspects of designing and conducting a research study. Addresses making critical choices concerning research questions, data collection, methods of measurements, and analysis. Focuses on professional-level, academic writing including writing for a dissertation and writing for publication. Includes a discussion of dissemination of research results and navigating the professional publication process. A practical application is attention to dissertation proposal development and addressing the processes, skills, knowledge, and general dispositions of the professional academic writer. Prerequisites: ENGL 815, ENGL 820

ENGL 845 Theories of Literacy 3 cr.

Examines the status of current and past theories of literacy, including the nature of literacy itself; the ways literacy is shared and used by individuals, families, and cultures; and the political, social, and personal ramifications of literacy.

ENGL 846 Research Seminar 3 cr.

Explores a single topic in depth in the fields of Composition and Applied Linguistics. Topics are announced in advance and have recently included narrative inquiry, writing centers, computers in composition, alternative research methods, discourse analysis, and assessment. May be taken more than once.

ENGL 847 Identity, Power, and the Multilingual Writer 3 cr.

Addresses understandings of current theories on identity as they relate to multilingual writers and develops the ways these theories can be used to analyze processes of identity construction in relation to writers and writing. It considers how issues related to notions of power and ownership of language are part of the larger social constructions of multilingual writers' identities and considers how these identities are often indexed in both research about multilingual writing and in multilingual writing itself.

ENGL 848 Topics in Composition and Applied Linguistics 3 cr.

Explores a single topic in depth. Topics are announced in advance and have include language history and change, pragmatics, oral and written discourse, stylistics, discourse analysis, and cross-linguistic patterns in language structure and use.

ENGL 854 World Englishes in Composition and Applied Linguistics 3 cr.

Provides an interdisciplinary approach to understanding issues around World Englishes scholarship where teachers, researchers, teach educators, and administrators from a variety of contexts come together to understand, explore, and critique how English(es) is/are positioned around the globe, and how that positioning impacts learning and teaching.

ENGL 867 Research on Writing Centers and Writing Program Administration 3 cr.

Examines the history, theory, and every day practices that surround writing centers and writing programs, including advances in writing across the curriculum and writing in the disciplines. Students will read key books and articles and develop a research project suitable for publication and presentation.

ENGL 955 The History and Theory of Criticism 3 cr.

Studies the founding texts of the Western tradition in ancient Greece beginning with Plato, Aristotle, and the sophists and places them in the historical context of significant cultural turns in literary, rhetorical, and cultural theory leading up to the present. As preparation for ENGL 956, this course examines key moments in the history of Western metaphysics in relation to contemporary concerns for theory, pedagogy, multiculturalism, and the changes in higher education, especially as they affect English studies.

ENGL 956 Literary Theory for the Teacher and Scholarly Writer 3 cr.

Focuses on contemporary literary and cultural theory, especially as it affects the teaching, scholarship, and curricular design of English studies, which has undergone significant changes in

recent decades. Examines contemporary theoretical approaches such as New Criticism, poststructuralism, deconstruction, reader response, Marxism, New Historicism, cultural studies, feminism, postcolonialism, gay and lesbian theory, and others, with a special emphasis on practice: how theory affects the classroom, the curriculum, and the writing of professional presentations and publications.

ENGL 983 Seminar: Literary Theory Applied to Major American Author or Theme 3 cr.

Advanced, independent work in a seminar format. Emphasizes the production of a research paper of publishable quality. Specific content for the course—a major author or specific theme in American literature—will be chosen by the instructor.

ENGL 984 Seminar: Literary Theory Applied to Major British Author or Theme 3 cr.

Draws on knowledge and critical skills from core courses and traditional and special literature courses for advanced, independent work. Focus is on a single major author or well-defined theme in British literature chosen by the instructor. Each student conducts practice teaching and produces a research essay suitable for submission for publication or presentation at a conference.

ENGL 985 Seminar: Comparative Literary Theory Applied to Traditional and Special Literatures 3 cr.

Explores and applies literary theory, criticism, and the theories and methods of comparative literature to traditional and special literatures. Students may expect to investigate from various critical perspectives to conflicting social and literary values. The specific course content is chosen by the instructor and announced in advance.

ENGL 995 Dissertation 12 cr.

NOTE: Special Topics in Language and Literature and courses with titles beginning “Topics in” (761-766 and 771-773), as well as seminars, may be scheduled more than once, because subject matter will change with each offering of the course. More complete course descriptions are available from the department.

*Indicates dual-listed class

FDED: Foundations of Education

Department of Professional Studies in Education
College of Education and Communications

FDED 514 Comparative Foundations of Education 3 cr.

Educational theories and practices in different nations will be studied. Educational purposes, curriculum, methods, administration, school systems, teacher education, and other educational features in America will be analyzed, evaluated, and compared.

FDED 581 Special Topics 3 cr.

FDED 590 Improving Professional Practice in Instructional Settings 1-3 cr.

and

FDED 591 Improving Professional Practice in Instructional Settings 1-3 cr.

Reviews current research in instructional practices, motivational techniques, and professional issues. May focus on any of these aspects of teaching, learning, or professional practice. May be presented with a kindergarten through grade twelve, elementary, middle school, secondary, or adult orientation. Offered only for continuous professional development and may not be applied toward a graduate degree. Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

FDED 595 International Education Studies Program 3 cr.

A travel-seminar conducted in a foreign country and designed to afford educators and students of education the opportunity to investigate teaching-learning process in cultural settings other than their own. Particular attention to such current educational issues as theories of curriculum development, methodology, teacher education, and changing value systems.

FDED 611 Historical Foundations of Education 3 cr.

Study of historical development of American education. European influences on philosophies and practices of American schools will serve as a background. Emphasis on development of education in America as influenced by various individuals and schools of thought. Historical trends will be related to current problems and practices in education.

FDED 612 Philosophical Foundations of Education 3 cr.

Analysis and evaluation of basic philosophies and their impact upon education. Nature, value, means, and ends of education and some other fundamental phases of schooling will be thoroughly examined.

Stress on essentials enhancing an individual working philosophy of education and on basic ideas heightening a sound philosophy for American schools.

FDED 613 Social Foundations of Education 3 cr.

Social and cultural forces which influence education. Particular stress on current problems as they relate to entire educational systems and to curricular problems and practices in today's schools.

FDED 699 Independent Study 1-6 cr.

FDNT: Food and Nutrition

Department of Food and Nutrition
College of Health and Human Services

FDNT 515 Sustainable Nutrition 3 cr.

Explores food system sustainability issues from farm to fork, including food production, preparation, processing, packaging, and distribution. Assesses the sustainability of current

dietary recommendations and the environmental impact of food choices. Evaluates food security from a national and global perspective.

FDNT 558/* Advanced Human Nutrition 3 cr.

In-depth study of the nutrients and their functions within the cell. Incorporation of the principles of physiology and biochemistry in the study of nutrition. Emphasis on current research.

Prerequisites: FDNT 212, CHEM 255, and BIOL 151.

FDNT 564/* Food and Nutrition Research Methods 3 cr.

Introduction to research methodology in food and nutrition. Includes theory and techniques of physical, chemical, and instrumental analysis. Applications of these methods to food and animal models with statistical analysis of data. Prerequisite: Department permission.

FDNT 581 Special Topics 3 or 4 cr.

FDNT 612 Administration of Food Service Systems 3 cr.

Addresses food service as a system of interrelated parts and of controlling management resources. Analyzes different types of food service delivery systems and covers legal responsibilities of a food service administrator. Prerequisite: Department permission.

FDNT 625 Community Nutrition and Policy 3 cr.

Examines the planning, organizing, implementing, supervising, and evaluating of community nutrition programs in profit and nonprofit settings. Prerequisite: Department permission.

FDNT 630 Connecting Theory to Research and Practice 3 cr.

Critical examination of the theories and models used in nutrition education, nutrition intervention, and nutrition counseling. Practice in using theories as a framework to guide effective research and intervention designs to promote positive food and nutrition behaviors provided. Prerequisite: Department permission.

FDNT 631 Eating Behaviors and Food Habits 3 cr.

Investigation and analysis of historical, political, religious, ethnic, environmental, and social influences which affect food consumption patterns. Prerequisite: Department permission.

FDNT 635 Nutrition Intervention, Counseling, and Educational Strategies 3 cr.

Addresses the selection or design, implementation, and evaluation of strategies to promote food, nutrition, and health information to diverse groups in a variety of settings. Focuses on the evidence-based approaches for food and nutrition intervention, counseling, and education to promote behavior change. Prerequisite: Department permission.

FDNT 642 Contemporary Issues in Food and Nutrition 3 cr.

Current information in foods and nutrition is investigated, analyzed, and evaluated for practical implementation.

FDNT 645 Proteins, Carbohydrates, and Fats 3 cr.

Nutritional considerations of protein, carbohydrate, and fat metabolism. Physiological and

biochemical functions of these nutrients will be discussed. Prerequisite: Department permission.

FDNT 647 Vitamins in Human Nutrition 3 cr.

Focuses on biochemical role of vitamins in human metabolism. Examines biochemical and physiologic functions and current research implications in health and disease. Prerequisite: Department permission.

FDNT 648 Minerals and Water in Human Nutrition 3 cr.

Focuses on biochemical role of minerals and water in human metabolism. Examines biochemical and physiological functions and current research implications in health and disease. Prerequisite: Department permission.

FDNT 651 Professional Dietetic Practice 3 cr.

Examines professional topics relevant to the dietetic professional. Provides a forum for clinical case study presentations and education about professional development opportunities and challenges.

Prerequisite: Department permission.

FDNT 661 Designing Effective Food and Nutrition Research Projects 3 cr.

Enhances understanding and skills in food and nutrition research and evaluation with emphasis on survey methods. Examines decisions related to research ethics, study design, sampling, recruitment, instrument development and testing, data collection, and analysis plans.

Development of a defensible proposal to conduct research in food and nutrition required.

Prerequisite: Department permission.

FDNT 662 Applying Research Methods in Food and Nutrition 3 cr.

Conduct research in food and nutrition. Participate in decisions and activities related to study design, instrument construction and pilot testing, data management and analysis, interpretation and communication of results. Prerequisite: Department permission and FDNT 661 minimum grade of C.

FDNT 681 Special Topics 1-3 cr.

FDNT 696 Dietetic Internship 1-6 cr.

Supervised practice experience for students who are enrolled in IUP's accredited dietetic internship or Individualized Supervised Practice Pathway (ISPP) programs. Prerequisite: Department permission and enrollment as intern or ISPP student.

FDNT 698 Internship 1-6 cr.

Supervised work experience for Food and Nutrition majors. Permission: Department chairperson.

FDNT 711 Lifecycle Nutrition 3 cr.

Studies bodily functions at different stages of development under differing environmental conditions and at various levels of biological organization. Prerequisite: Department permission

FDNT 773 Advanced Clinical Nutrition Therapy 3 cr.

Provides in-depth investigation of diet and nutrition in the treatment of select diseases and conditions. Will address measures of nutritional status, intervention, monitoring and evaluation using nutrition standardized language and evidence based practice. Focus will be on current nutrition issues impacting clinical practice. Prerequisite: Department permission and undergraduate coursework in medical nutrition therapy.

FDNT 795 Thesis 1-4 cr.

FDNT 799 Independent Study in Food and Nutrition 1-3 cr.

Prerequisite: Completion of two courses in the department requirement. Advanced study and/or selected research problems from the field of food and nutrition. May be taken for a maximum of three credits.

*Indicates dual-listed class

FIN: Finance

Department of Finance and Legal Studies
Eberly College of Business and Information Technology

FIN 500 Foundations of Finance 1.5 cr.

Designed for EMBA students without prior Finance background to prepare them for MBA Financial Management course. Provides students with the concepts that constitute the base for finance theory and the foundations for the techniques used in making financial decisions.

FIN 501 Energy Finance 3 cr.

Presents a strategic framework for examining energy finance strategies used primarily in the oil and gas industry. It discusses the wide range of tools available for financing energy projects such as equity, debt, tax credits and other methods used by corporations. It extends the financing framework by describing current theories and applications in developing the energy product and how it is priced and delivered to the end user. Prerequisite: None.

FIN 510/* Financial Institutions and Markets 3 cr.

A review of the structure of financial institutions, money, and capital markets. Provides knowledge of the theory and practices of managing financial institutions, with particular emphasis on the management of financial risks. This course covers the different types of depository and non-depository financial institutions, the different types of risks to which these institutions are exposed, and the different techniques used in covering these exposures. In addition, it will cover the different types of specialized financial markets and their instruments. Prerequisites: FIN 630 or by permission of the Eberly College of Business and Information Technology graduate coordinator.

FIN 520/* Investment Analysis 3 cr.

Integrates the work of various courses in the finance areas and familiarizes the student with the tools and techniques of research in the different areas of investments. Prerequisites: ACCT 301, FIN 310, FIN 324, or permission of Eberly College of Business and Information Technology graduate coordinator.

FIN 524/* International Financial Management 3 cr.

Provides an insight into the unique issues and problems that the manager of the multinational enterprise will face, such as working capital management; capital budgeting process; financing and investing abroad; capital and money markets; foreign exchange markets; and risk management.

Prerequisite: FIN 310 or equivalent.

FIN 525 Financial Derivatives 3 cr.

Provides an understanding of how the derivatives markets work, how they are used, and how prices are determined. Includes the common types of derivatives, their characteristics and properties, and trading methods and strategies. Also, covers fundamental pricing models based on arbitrage pricing theory, binomial, and Black-Scholes models. Prerequisites: FIN 324 for FIN 425 and FIN 630 or equivalent/permission.

FIN 581 Special Topics in Finance 3 cr.

Covers advanced or exploratory topics within the discipline. Specific content developed by the instructor. Content will vary, depending upon the interests of the instructor and students' need and demand for the advanced or exploratory topic. Prerequisite: Permission of instructor and Eberly College of Business and Information Technology graduate coordinator.

FIN 630 Financial Management 3 cr.

An extension of basic managerial finance, dealing with theory and practice of analyzing companies, financial planning, capital budgeting, management of working capital, and obtaining funds for the corporation. Prerequisite: FIN 310.

FIN 632 Seminar in Finance 3 cr.

Covers topics in all areas of finance by using recent articles, cases, discussions, speakers, and a finance simulation game. Designed to bring together all aspects of finance. Prerequisite: FIN 630.

FIN 635 Principles of Investments in Securities 3 cr.

Introduces many forms of existing investment policies. Attention is given to operation of stock markets, concepts and terminology of investing, mutual funds and their function, investment clubs, and problems involved in making investments through brokers, bankers, and stock promoters. Prerequisite: FIN 630.

FIN 681 Special Topics in Finance 3 cr.

Covers advanced or exploratory topics within the discipline. Specific content developed by instructor. Content will vary, depending upon the interests of instructor and students, with instructor choosing specific topics. May be repeated by specific approval. Prerequisite: Permission of the instructor and the Eberly College of Business and Information Technology

graduate coordinator.

FIN 698 MBA Internship 1.5 or 3 cr.

A planned, field-based, individually designed, and faculty-supervised work-experience to enhance the student's professional competence in Business Administration and selected functional area. Maximum of 3 credits can be applied towards MBA electives. Prerequisites: Completed 15 graduate credits. Approval by department chair and graduate coordinator.

FIN 699 Independent Study in Finance 1-3 cr.

Individual research and analysis of contemporary problems and issues in a concentrated area of study under the guidance of a senior faculty member. Prerequisite: Consent of instructor, departmental chairperson, and Eberly College of Business and Information Technology dean.

FIN 795 Thesis 4-6 cr.

For students writing a thesis, FIN 795 should be scheduled for the semester in which the student plans to complete his/her work. The thesis is a committee thesis (4-6 cr.), for which the student's advisor, two additional faculty members, the Eberly College of Business and Information Technology graduate coordinator, and/or the representative of the dean of the Eberly College of Business and Information Technology may constitute the committee.

FIN 870 Financial Institutions and Markets 3 cr.

Covers structure of modern financial institutions management from a risk perspective. It will include coverage of material relating to capital markets and investment in financial assets taking into account globalization and integration of financial markets. The course will also focus on international corporate finance, including a firm's exposure to exchange rate risk and methods and financial instruments used to manage those risks. Prerequisite: Student in the PhD business program

*Indicates dual-listed class

GCOE: Graduate College of Education and Communications

College of Education and Communications

GCOE 541 Creativity and Creative Problem-Solving 3 cr.

Examines the history, current literature, and neuroscience of creativity before offering an overview of approaches and models of creativity and creative problem-solving. The crux of the course is the application of creativity and creative problem-solving for professionals in their respective workplaces.

GCOE 781 Mental Health Diagnosis and Interventions for the School Professional 3 cr.

Designed for graduate student wishing to enhance their knowledge of children and adolescents with mental health diagnoses. Students will be provided current information on the most common disorders given to school-age youth and the negative impact socioemotional issues can have on educational attainment. Prevention and intervention oriented approaches for use in the school will be described. Students enrolled in the course will begin to plan, implement, and

evaluate interventions to facilitate student success.

GEOG: Geography

Department of Geography and Regional Planning
College of Humanities and Social Sciences

GEOG 511/* History of Geography 3 cr.

History of the discipline, great ideas, leading professionals, and unresolved issues are studied.

GEOG 513 Cartography 3 cr.

Develops ability to map and diagram human and environmental phenomena. Special maps, charts, and diagrams will be considered as required by students. Recommended for all master's candidates.

GEOG 514 Map and Photograph Interpretation 3 cr.

Develops skill in extracting information and synthesizing data from maps and aerial photographs as applied to geologic, land use, planning, and terrain analysis problems.

GEOG 515/* Introduction to Remote Sensing 3 cr.

Introduces the concepts, principles, methods, and theories applied in and through remote sensing of the earth's physical and cultural features. Includes understanding the physical principles of the electromagnetic spectrum, the technological underpinnings of a variety of sensors, and applications of these technologies. Applies industry standard software packages in the geospatial sciences to illustrate course concepts and build software recognition and application skills.

GEOG 516/* Introduction to Geographic Information Systems 3 cr.

Presents automated methods for creating, maintaining, and analyzing spatial data. Includes (1) specialized GIS hardware and software, (2) vector vs. raster vs. object-oriented spatial data structures, (3) creation and manipulation of geographic data files, (4) database design and management concepts, (5) spatial analysis, and (6) cartographic design.

GEOG 518 Geographic Information Systems (GIS) for Crime Mapping and Social Scientific Analysis 3 cr.

Provides students with knowledge of the theoretical basis of Geographic Information Systems (GIS) and their applications for criminologists and other social scientists. In the process of demonstrating some of the capabilities of GIS, the specifics of selected GIS and database software packages will also be covered. During the course of the semester, students will develop the skills to use GIS packages, manipulate and query geographic data to solve problems, perform simple spatial analysis, and understand how to utilize GIS in law enforcement/social science problem-solving and decision-making processes. Prerequisite: None.

GEOG 519 Geographic Information Systems (GIS) for Environmental Applications 3 cr.

Provides students with knowledge of the theoretical basis of Geographic Information Systems (GIS) and their applications for environmental scientific analysis. In the process of demonstrating some of the capabilities of GIS, the specifics of selected GIS and database

software packages will also be covered. During the course of the semester, students will develop the skills to use GIS packages, manipulate and query geographic data to solve problems, perform simple spatial analysis, and understand how to utilize GIS for environmental analysis and resource management. Prerequisite: None.

GEOG 520/* Technical Issues in Geographic Information Systems 3 cr.

Uses project-based approach to develop and maintain a geographic information system. Designs and implements functional systems through cooperative learning. Covers methods for designing GIS to user specification, data collection, data input, project management, and system documentation Prerequisite: GEOG 416/516 or GEOG 419/519

GEOG 521 Enterprise GIS Management 3 cr.

Principles and methods for creating, operating, maintaining, and managing data for multi-user geospatial information systems are studied. Each student will customize, document, and operate a multi-department, multi-user geographic information system of his/her design. Prerequisite: GEOG 517 or consent of instructor.

GEOG 525/* Global Positioning Systems (GPS) Concepts and Techniques 3 cr.

Provides students with knowledge of the theoretical basis and practical applications of Geographic Positioning Systems (GPS). Students will gain hands-on experience using GPS receivers and GPS observables, as well as the ability to determine point and relative position fixes from pseudorange and carrier phase measurements. Students will be exposed to industry standard GPS hardware and software, as well as appropriate techniques for processing GPS data to achieve necessary levels of horizontal and vertical positional accuracy. Integration of GPS and geographic information systems (GIS) will also be discussed.

GEOG 526/RPGL 426 Environmental Land Use Planning 3 cr.

Examines principles, techniques, and applications for the environmental land-use planning process. Focuses on surface water and deals with topics such as land-use, stream monitoring, stream conservation and restoration, and watershed management. Students who complete course will be exposed to environmental planning legislation and policy, best management practices, and applied techniques. Prerequisite Graduate: None (RGPL 550 recommended).

GEOG 531 Population Geography 3 cr.

Spatial variations in numbers, characteristics and dynamics of human population, models, and theoretical constructs relevant to demographic structures and processes are studied.

GEOG 532 Urban Geography 3 cr.

Analysis of city types, patterns, and functions as influenced by geographic conditions and other factors. City planning techniques and field study are utilized.

GEOG 533 Geography of Transportation and Trade 3 cr.

Transportation systems and their use: accessibility, circulation, time and distance concepts, and trade patterns. Empirical and theoretical approaches are examined.

GEOG 534 Political Geography 3 cr.

Geographic factors and conditions are analyzed as they relate to character and function of states. Political institutions in light of geographic conditions.

GEOG 535 Geography of Energy 3 cr.

Covers patterns and problems of energy production and consumption in human societies. Descriptions of what, where, and how much are combined with issues such as technological change, conservation, allocations, environmental impacts, and economic development. Specific topics global history and trends of energy development, pricing systems, types of energy, locations of production areas, and the energy status of the United States. Prerequisite: None.

GEOG 536 Social Geography 3 cr.

Spatial dimensions of the American society are the focus of this course. The distribution of various social groups and their impact on the landscape are considered.

GEOG 540 Conservation: Environmental Analysis 3 cr.

Problems of exploitation and utilization of regional resources (e.g., soils, minerals, forests, and wildlife), in relation to population growth and regional planning and development.

GEOG 541 Climatology 3 cr.

Examines the elements of weather and climate on Earth. The location and causes of global climatic regions are examined in relation to moving pressure and wind systems. The course also considers the climatic history of the planet and recent human modifications of the atmospheric environment.

GEOG 542 Physiography 3 cr.

Focuses on landform types and their spatial distribution. Emphasis is placed on the tectonic forces that build landforms and the weathering and erosional processes that erode and shape surface features. The relationship between human activities and landforms is also considered.

GEOG 543/* Fresh Water Resources 3 cr.

Focuses on surface and groundwater as a resource with unique properties. Fresh water is defined physically by storage in the hydrologic cycle and the values assigned by different cultures. Problems featured relate to consumptive and withdrawal water uses, the problems of water supply and scarcity, water law and its inconsistencies, flooding and floodplain management, sources of contamination and pollution, wetlands, and case studies of selected river basins.

GEOG 544 Energy Development and Compliance I 3 cr

Reviews and characterizes energy resources found in northern Appalachia, and the logic and techniques used to identify, quantify and regulate their development and extraction. Focuses in particular on the spatial dimensions of shale gas, coal, and wind as major energy sources in northern Appalachia, and deals with topics such as exploration, environmental and cultural compliance, logistics, production analysis, and infrastructure maintenance. Prerequisites: None

GEOG 545 Energy Development and Compliance II 3 cr

Reviews and characterizes the spatial representation and analysis techniques used by public,

private and non-profit entities engaged in the energy industries. Focuses in particular on the implementation of energy resource applications such as exploration and development,

environmental and cultural compliance, logistics, production analysis, and infrastructure maintenance. Prerequisites: None

GEOG 550 Introduction to Planning 3 cr.

Introduction to the profession and activity of contemporary American urban and regional planning. Course emphasis is placed on land use control, design, growth management, and development regulation. Legal and institutional bases of planning practice are covered as well.

GEOG 552 Planning Methods 3 cr.

Research, analytical design, and plan-making techniques in urban and regional planning. Examines basic items necessary to prepare urban and regional comprehensive plans.

GEOG 554 Planning Design 3 cr.

Presents concepts of city, subdivision, and transportation design in relation to topography, natural resources, and other physical elements. Prerequisite: GEOG 550.

GEOG 558 Land Use Law 3 cr.

Introduces students to principles of land use law. The course focus is on federal constitutional principles and key Supreme Court cases, especially as they relate to actions of local units of government and municipal planning practice. Deals with the present state of land use law and with current trends and issues. Prerequisite: GEOG 550 or GEOG 564.

GEOG 562 Planning Policy, Implementation, and Administration 3 cr.

Focuses on the planning and implementation of policies to manage the location, timing, type, and intensity of land development. Explores the multi-step process from community plan to project completion. Exposes students to the public environment in which community plans are developed and implemented and walks them through the real world problems of identifying projects, building agency and interagency consensus, finding funding, putting together a project plan, project management, personnel and budget to project completion. Prerequisites: RGPL 458/GEOG 558.

GEOG 564/* Land Use Policy 3 cr.

Introduces students to and provides an overview of land use issues at the regional, state, and federal levels. Emphasizes evolution of contemporary policy strategies, constitutional issues, and regional controversies involved in the regulation of metropolitan growth, central city decline, and management of public lands.

GEOG 568 Planning Theory 3 cr.

Examines process of city planning during ancient, medieval, Renaissance, and modern periods. A review of early planning in America, as well as present city planning, is included. Prerequisite: GEOG 550

GEOG 581 Special Topics 3 cr.

Topical courses offered on an experimental basis. Check department schedule for these offerings.

GEOG 584 Field Studies in Geography and Social Studies 3 cr.

Immerses the student in a regional environment. Helps the student to critically see and to interpret a cultural landscape. The experience is predominantly off campus. Using a combination of structured field exercises, culturally specific readings, primary and secondary data, and standard geographic field techniques, the course strives to develop for the student a deeper affective and cognitive understanding of a cultural region. May be repeated under a different study area title. Prerequisite: Permission of instructor.

GEOG 610 Research in Geography and Regional Planning 3 cr.

Elements and techniques of scientific research, as applied to geographic and planning problems, are studied. A research proposal is developed.

GEOG 612 Quantitative Techniques in Geography and Regional Planning 3 cr.

Descriptive and inferential statistical techniques applied to spatial distribution and spatial association of physical and cultural phenomena and testing of spatial theoretical constructs.

GEOG 614 Thought and Philosophy in Geography and Regional Planning 3 cr.

Examines the status of current and past thought and philosophy in geography and regional planning, using the literature in planning, geography, and the philosophy of science. Topics examined are regional development, local planning, environmentalism and physical geography, and cultural geography. Prerequisite: GEOG 610.

GEOG 617 Field Techniques in Geography and Planning 3 cr.

Field tools and techniques are evaluated and used in the study of a specific area. Interpretation of spatial patterns of phenomena is emphasized.

GEOG 618 GIS Applications Development 3 cr.

Takes students with GIS analysis skills to the next level: developing of software to automate methods and processes learned in prerequisite courses. Students will learn to write object-oriented software tools for spatial data transaction processing and analysis. Prerequisite: GEOG 516.

GEOG 624 Technical Issues in GIS 3 cr.

Uses project-based approach to develop and maintain a geographic information system (GIS). Designs and implements functional systems through cooperative learning. Covers methods for designing GIS to user specification, data collection, data input, project management, and system documentation. In addition to mastering the concepts and topics, students will be expected to perform project management functions by overseeing the needs assessment, functional requirements analysis, spatial data design and development, scholars forum posters, final maps and documents, and final presentations, to demonstrate both understanding the context of the project and the ability to delegate and manage a team to undertake necessary GIS planning and development procedures. Prerequisite: GEOG 516 or GEOG 519.

GEOG 623 Regional Development 3 cr.

Theory and policy implications of the spatial aspects of development in various regions of underdevelopment.

GEOG 625 Environmental Planning 3 cr.

Provides students with information about natural resources, their characteristics, and various techniques that can be implemented for their preservation, conservation, and management. In particular, emphasis will be placed on human-environment interaction and how aspects of the environment can and should be accounted for in planning processes at various spatial scales and levels of analysis. Course material will be presented through lectures, as well as guest speakers, field trips, and student presentations.

GEOG 630 Cultural Geography 3 cr.

Literature and methods of cultural geography. Topics include population, settlements, human ecology, culture areas, and related features.

GEOG 633 Settlement Geography 3 cr.

Settlement patterns and processes; origins, diffusion, classification, pioneer, settlement planning, and agricultural colonization.

GEOG 650 Regional Geography 3 cr.

Various regions of the world may be dealt with, such as Latin America, Africa, or South Asia, when there is sufficient student demand. Physical, environmental, cultural, and population patterns are considered.

GEOG 655 Advanced Remote Sensing 3 cr.

Expands beyond basic principles of remote sensing to understand and apply complex methods of data collection, normalization, and analysis. Covers radiometric normalization, spectral transformations, change detection, object oriented classification, spatial analysis and filtering, accuracy assessment, and emphasizes application of learned techniques. A research intensive experience formulating remote sensing project design, execution, as well as analysis and assessment of project outcomes (experiments). Prerequisite: GEOG 415 or GEOG 515

GEOG 665 Plan Implementation 3 cr.

Considers zoning, improvement programs, housing codes, building codes, methodology and application of administrative procedures, federal and local urban renewal programs, site selection, and program administration. Prerequisite: GEOG 550.

GEOG 670 Professional Problems in Geographic Education 3 cr.

Classroom problems and discussion centered about new viewpoints in geography. Individual reports, group discussion, and research included.

GEOG 675 Spatial Analysis Techniques 3 cr.

A techniques and project-based course where students learn advanced spatial analysis skills utilizing Geographic Information Systems. Students will learn the concepts underlying spatial analysis techniques and obtain hands-on experience operationalizing methods through use of GIS hardware and software. Prerequisites: GEOG/RGPL 316/516.

GEOG 680 Seminar 3-6 cr.

Seminars on various topics will be offered occasionally. Topics such as new trends in planning, cartographic theory, or spatial aspects of service industries are the focus of research projects.

GEOG 681 Special Topics 3 cr.

Topical courses offered on an experimental basis. Check department schedule for these offerings.

GEOG 698 Internship 3-12 cr.

Professional learning experience with emphasis on practical applications of academic background. Prerequisites: Twelve academic credits and a 3.00 cumulative GPA.

GEOG 699 Independent Study 1-6 cr.

Independent research and study under faculty direction. Interested students should apply to director of graduate studies.

GEOG 795 Thesis 3-6 cr.

Registration for thesis must be approved by the department's graduate coordinator and chairperson ahead of time.

*Indicates dual-listed class

GEOS: Geoscience

Department of Geoscience
College of Natural Sciences and Mathematics

GEOS 699 Independent Study 1-3 cr.

Independent research under faculty direction.

GSR: Graduate General Service

The School of Graduate Studies and Research

GSR 516 Statistical Methods I 3 cr.

Measurement and statistical techniques as used in administration and educational research. Basic descriptive statistics, including measures of central tendency, variability, and correlation are developed. Reliability and validity of test scores with emphasis on use of statistical techniques are studied, along with their interpretation.

GSR 517 Statistical Methods II 3 cr.

Using computer programs, a wide array of statistical procedures for research workers are

explored. Basic concepts of statistical inference and prediction are reviewed, including regression analysis and prediction, hypothesis testing, analysis of variance and covariance, and partial and multiple correlation. Emphasis is placed on use of computers and interpretation of computer printouts along with understanding techniques employed. No computer knowledge is necessary.

Prerequisite: GSR 516 or equivalent.

GSR 615 Elements of Research 3 cr.

Selection of a research problem, data collection, types of research, research reports, and use of the library and computer in connection with research problems are studied. Elements of statistics are introduced. This course provides background for preparation of the thesis and enables the student to become an intelligent consumer of products of academic research.

GSR 581/681/781/881/981 Special Topics I 3 cr.

Group study of course material not offered in other graduate courses. Prerequisite: May not be scheduled without prior written approval of the Dean of the School of Graduate Studies and Research.

GSR 699 Independent Study I 3 cr.

Individualized, in-depth study of an approved topic directed by a participating faculty member and approved administratively. Prerequisite: May not be scheduled without prior written approval of the Dean of the School of Graduate Studies and Research.

GSR 795 Thesis 3-4 cr.

GSR 951 Extended Dissertation 3 cr.

HIST: History

Department of History

College of Humanities and Social Sciences

HIST 501 History of Ancient Greece 3 cr.

Analyzes major political, social, economic, and cultural developments in ancient Greek civilization from the Bronze Age to the death of Alexander.

HIST 502 History of Ancient Rome 3 cr.

Traces Roman history from early Republic to fall of Empire. A study of a civilization from its inception to its collapse.

HIST 503 Medieval Europe I, 400-1000 3 cr.

History of early Medieval Europe, from decline of Rome to beginnings of High Middle Ages; emphasis on political, social, economic, religious, and intellectual developments.

HIST 504 Medieval Europe II, 1000-1350 3 cr.

History of late Medieval Europe, from High Middle Ages to Renaissance period; emphasis on political, social, economic, religious, and intellectual developments.

HIST 505 Renaissance and Reformation 3 cr.

History of Europe from ca. 1250; rise of commercial city, kings, and pressures on the Christian Church to 1600. Some consideration of technology and voyages.

HIST 506 Early Modern Europe 3 cr.

Greatness of France under Louis XIV; Sweden; Thirty Years' War; emergence of modern society; French Revolution.

HIST 507 History of Europe, 1815-1914 3 cr.

Study of Europe in nineteenth century, with emphasis on the emergence of major thought patterns, Romanticism, Socialism, and Positivism.

HIST 508 Twentieth-Century Europe 3 cr.

Political, economic, and diplomatic trends of Europe since 1900, with major emphasis on causes and results of war and search for security.

HIST 511 Rise and Fall of Hitler's Empire 3 cr.

In-depth study of Hitler and the Nazi Order: offers an analysis of nineteenth-century origins of Nazi ideology and intensively analyzes domestic and foreign policy (1920-1945), including Holocaust, Resistance, and the postwar Nuremberg Trials.

HIST 520 History of England to 1688 3 cr.

Survey of growth of English nation, with emphasis on political, social, and economic developments leading to seventeenth-century conflict between Crown and Parliament.

HIST 521 History of England, 1688-Present 3 cr.

Survey of growth of England as a democratic constitutional monarchy. Attention directed to colonial America and English-U.S. relations, as well as to imperial expansion and England's role in the twentieth-century world. Cultural history is included.

HIST 522 French Revolution and Napoleon 3 cr.

Development of the Grand Monarchy, brief sketch of Old Regime, concentration on the Revolution and Empire, with emphasis on politics, diplomacy, and economics. Readings and brief papers.

HIST 526 History of Russia 3 cr.

General survey of Russian history, culture, and institutions. Special consideration given to study of historical forces formative of revolution in 1917.

HIST 527 History of Soviet Russia 3 cr.

General survey of contemporary Soviet history, culture, and institutions. Special emphasis given to study of communist theory and its place in current Russian historiography.

HIST 530 History of Islamic Civilization 3 cr.

An approach to learning about non-Western culture; Mohammed, Arabs, Muslims as creators of a great civilization from the rise of Islam to 1800; emphasis on cultural institutions and their interrelationships within the Middle East.

HIST 531 Modern Middle East 3 cr.

Survey of changes that have taken place in the Middle East and in Islam since eighteenth century and of contemporary problems in that region.

HIST 540 Colonial America 3 cr.

Survey of original thirteen states from their inception within the British Empire to 1763, the eve of independence. Attention given to their political development, economic position within the empire, relations with Indians, and evolution of their social, educational, and religious lives.

HIST 541 The American Revolution 3 cr.

Study of United States history from beginnings of revolutionary crisis in 1763 through adoption of the Constitution and the administration of John Adams. Special emphasis is given to the causes and civil war aspects of the revolution and the constitutional-political development of the new nation.

HIST 542 The Early Republic 3 cr.

Survey of United States history from 1783 to 1850, with special attention to constitutional, political, and social trends.

HIST 543 Civil War and Reconstruction 3 cr.

Study of failure of American democracy to cope with issues of mid-nineteenth century, followed by political, economic, military, and social developments during war and reconciliation of North and South.

HIST 550 History of Latin America: Colonial Period, 1450-1820 3 cr.

Study of life of people, Indian cultures, conquest by Spaniards and Portuguese, government during Colonial Period, and Wars of Independence.

HIST 551 History of Latin America: National Period, 1820-Present 3 cr.

Study of history of nations which have emerged since independence; emphasis on economic, political, cultural, and social developments of these nations, as well as relations of these nations to others in the hemisphere.

HIST 560 History of Pennsylvania 3 cr.

Emphasizes the cultural, economic, political, and social development of our state in various periods from colonial to today. Special attention given to diversity of Pennsylvania's people and their institutions and problems.

HIST 561 American Diplomacy, 1775-1900 3 cr.

Traces foreign relations of the United States from Independence to emergence as a world power. Topics concentrate on themes of commercial relations, political isolation, expansion, and debate over imperialism.

HIST 562 History of American Diplomacy 1900+ 3 cr.

Treats primarily our twentieth-century involvement in world affairs and domestic debate over

that involvement. Special emphasis will be placed on the role of interest groups and increasing power of Executive Department over foreign affairs.

HIST 563 Thought and Culture in Early America 3 cr.

Selected topics in early American intellectual and cultural growth, with emphasis on Puritanism, Enlightenment, Cultural Nationalism, and Romantic Movement.

HIST 564 Thought and Culture in Modern America 3 cr.

Selected treatment of historical development of modern American movements in social and political thought, religion, philosophy, fine arts, and literature.

HIST 565 History of Black America Since Emancipation 3 cr.

Description and analysis of role of blacks in history of the United States since the Civil War; emphasis on key leaders, major organizations, leading movements, and crucial ideologies of blacks in modern America.

HIST 567 Native American History 3 cr.

An unfamiliar perspective on a familiar tale. Presents the “new Indian History”—North America from Native American materials and points of view. Identification, analysis, and synthesis of Indian realities and options over time are at the heart of this course.

HIST 569 Women in America 3 cr.

Surveys of religious, legal, political, social, and popular culture perspectives of womanhood in America from colonial times to present.

HIST 572 History of the Early American Working Class 3 cr.

Description and analysis of nature and significance of the U.S. working class in eighteenth and nineteenth centuries. Work settings and communities of workers are examined as well as unions such as the National Labor Union and Knights of Labor.

HIST 573 History of the Modern American Working Class 3 cr.

Description and analysis of the nature and significance of the U.S. working class in the twentieth century. Work settings and strikes are examined and analyzed, as well as unions such as the United Mine Workers and United Auto Workers and leaders including Samuel Gompers, John L. Lewis, and George Meany.

HIST 581 Special Topics in History 3 cr.

Each semester, courses are offered in interest areas which are not part of the regular course offerings.

HIST 591 Film as History 3 cr.

Deals with the cinema as social, cultural, and intellectual history from its origins to the present day.

HIST 600 Readings in History 3-6 cr.

Directed readings of historical materials, focused on a general topic.

HIST 601 History Seminar 3-6 cr.

Area research, culminating in a formal paper.

HIST 605 Introduction to Public History 3 cr.

Introduces wide range of activities in which public historians engage. Explores theoretical and practical issues associated with historic preservation, historical editing, oral history, the management of archival and manuscript collections, and a variety of other public history activities. Also considers broader conceptual issues associated with the concept of public history.

HIST 606 Topics in Public History 3 cr.

Focuses on one specific field of public history activity (field varies from semester to semester). Extensive reading in the literature of that field and completion of an appropriate project or paper. Prerequisite: HIST 605.

HIST 614 Research Methods 3 cr.

Investigation of library systems, reference works, bibliographies, how to compile a bibliography, organizing research, use of statistics, style systems in printing.

HIST 681 Special Topics 3 cr.

HIST 698 History Internship 1-6 cr.

With departmental approval, students are attached to local or national government or private agencies doing directive, bibliography, archival, or museum work. Advising professor meets with intern regularly and determines what papers or reports will be required.

HIST 699 Independent Study 3 cr.

Student selects topic for individual study with an instructor.

HIST 770 Archival Principles and Practice 3 cr.

Designed to provide students with an introduction to the archival profession and the practices of the professional. Students will come to understand professional standards and ethical responsibilities in the field. They will also learn of the historical importance of recordkeeping in society and the significance of the archivist's role in collecting, preserving, and maintaining these records. Finally, students will combine classroom instruction in archival method with practical experience in an archival setting. Prerequisite: HIST 605.

HIST 771 Museum Studies 3 cr.

This course is designed to provide students with an introduction to the history of museums and the field of museum studies. The course will explore the practices of the professional. Students will come to understand professional standards and ethical responsibilities in the field. The course explores the importance of museums and museum professionals in collecting, preserving and presenting history and the human experience for a public audience. Finally, students will combine classroom instruction in museum method with practical experience. Prerequisite: HIST 605 or instructor's permission.

HIST 772 Oral History Theory and Method 3 cr.

This course is designed to provide students with an introduction to the practice of the craft of oral history. Students will learn professional standards and ethical responsibilities in the practice. They will also learn of the historical importance of the preservation of the oral record and the oral historian's role in collecting, preserving, and presenting these records. Students will also explore the role of oral history in creating collective/community memory. Finally, students will combine classroom instruction in oral history methods with practical experience. Prerequisite: HIST 605 or instructor's permission.

HIST 790 Seminar in Public History 3 cr.

This course is designed as the capstone for students in the public history track. Students will be required to draw on program experience to conduct a major project, write a research paper, and assemble a professional portfolio. Prerequisites: HIST 605; two courses from the following: HIST 606, 770, 771, 772; and, 6 credits of internship (can be concurrent with HIST 790).

HOSP: Hospitality Management

Department of Hospitality Management
College of Health and Human Services

HOSP 511* Contemporary Issues in Hospitality Management**HOSP 550* Training, Development, and Supervision in Hospitality Management****HSAD: Health Services Administration**

Department of Employment and Labor Relations
College of Health and Human Services

NURS/HSAD 555 Health Care Informatics 3 cr.

An introductory and overview course in the application of the disciplines of health sciences, computer science, and information science in collecting, processing, and managing information to promote decision making in health care.

HSAD 605 Epidemiology in Health Services Administration 3 cr.

Addresses the concepts and methods of epidemiology as they apply to a variety of health events. Examines concepts of epidemiology, identifies data sources, and interprets epidemiological research findings. Issues in the application of epidemiology to health services administration are addressed.

HSAD 609 Ethics and Social Issues in Healthcare 3 cr.

Explores ethical imperatives as they apply to the provision of health services in the twenty-first century. Selected ethical frameworks provide the structure to analyze emerging cultural and societal issues impacting the delivery of health care services. The provision of health services to vulnerable populations, as well as rural health issues, will be of particular interest.

ELR/HSAD 610 Employee Rights under Law 3 cr.

Provides a review of the major legislative rights and benefits available to employees under law in terms of their impact on labor and management in the employment relationship. The main focus will be the analysis and application of state and federal employment laws.

NURS/HSAD 614 Health Policy 3 cr.

Focuses on the legislative, regulatory, and political processes that impact health services in the United States. Students will examine their role in health policy development at the federal, state, and local levels. Selected policies will be analyzed for their effect on health care delivery. The influence of U.S. policy on the health of those in other countries will be explored.

ELR/HSAD 616 Health Law 3 cr.

Focuses on legal language, tort law, legal issues, and legal sanctions of state and national health care laws as applied to individuals and organizations. Through lectures, discussions, readings, and presentations, students will learn to solve problems of health care administration within the current health care legal system and develop an understanding of the legal issues present within the current health care field.

ELR/HSAD 619 Advanced Research in Employment Relations and Health Services Administration 3 cr.

Provides students with the advanced knowledge needed to understand the process of research development, effectively evaluate research studies, interpret common statistical information, use the statistical package for social sciences, and develop and execute a research project.

ELR/HSAD 631 Human Resources Management in the Public Sector 3 cr.

Provides students with an in-depth analysis of human resource management with a special examination of public sector organizations. Emphasizes the job functions and issues facing the human resource professional and organizations. Course topics include the current environment in human resources, the acquisition and preparation of human resources, the assessment and development of Human Resource Management (HRM), the strategies involved in compensation administration, and collective bargaining and labor relations issues in the public sector.

NURS/HSAD 730 Financial Management in Health Care 3 cr.

Provides an opportunity for students to examine the financial decision-making processes used by health care administrators. Emphasis will be on understanding health care payment systems, assessing and developing financial plans, and making financial decisions in a variety of health care settings.

ELR/HSAD 751 Conflict Resolution 3 cr.

Provides students with in-depth analysis of conflict resolution in many settings, primarily in the employment relationship. The student will be exposed to the current environment surrounding conflict resolution; the legal, ethical, and emotional issues that are common in disputes; and the format by which employment disputes are resolved.

HSAD 761 Health Services Capstone 3 cr.

This capstone course provides a culminating educational experience. Working with a mentor in a health service organization, the student is required to design, implement, and evaluate a project

utilizing the skills and knowledge acquired through the Health Services Administration program and reflecting professional values and critical thinking developed during the course of study.

HSAD 795 Thesis 3-6 cr.

IFMG: Information Management

Department of Information Systems and Decision Sciences
Eberly College of Business and Information Technology

IFMG 556 Business, Intelligence, Informatics, and Big Data Analysis 3 cr.

This course is concerned primarily with business analysis dealing with quantitative approaches, including those involving big data, for decision making for Business Intelligence and Informatics (BII). Big Data (BD) is the term for a collection of data sets that are so large and complex that it becomes difficult to process this data by using on-hand database management tools or traditional data processing applications alone.

IFMG 560 Analysis and Logical Design 3 cr.

Involves teaching the tools and techniques required for the analysis and design of a business system. Along with in-class discussions of the principles and techniques for analyzing, designing, and constructing the system, the students will also formulate system teams in order to analyze the problems of an existing business information system, to design an improved system, and to control the implementation of the new system. Prerequisites: Permission of the instructor.

IFMG 580/* Distributed Business Information Systems 3 cr.

Study of the techniques involved in planning, design, and implementation of distributed processing systems. Distributed marketing, financial, and corporate accounting systems are included. Prerequisite: IFMG 451/551 or by instructor's permission.

IFMG 581 Special Topics in Information Systems 1-3 cr.

Covers advanced or exploratory topics within the discipline. Specific content developed by the instructor. Content will vary, depending upon the interests of the instructor and students' need and demand for the advanced or exploratory topic. Prerequisite: Permission of instructor and Eberly College of Business and Information Technology graduate coordinator.

IFMG 639 Information Systems Practicum 3 cr.

Provides at least 120 hours of supervised (supervised by a faculty advisor and an onsite supervisor) onsite practical experience during an academic semester, in student's desired subfield within the area of Information Systems (IS). Involves application of a combination of business and IS skills learned as part of the MBA curriculum to solve organizational problems, and enhance organizational efficiency and effectiveness. Also involves on the job training in various enterprise applications, methodologies, frameworks and technologies, for further skill enhancement. Prerequisites: Students who are enrolled in the IUP MBA program and permission of the instructor.

IFMG 640 Management Information Systems 3 cr.

Introduces MIS concepts and theories to the graduate student. Deals with information processing

and communication as they relate to the development and design of effective business applications. Computer system hardware, software, and database management concepts are discussed in terms of the integration of specific business subsystems into a comprehensible organizational management information system. Managerial involvement in the planning, utilization, and control of information systems is emphasized. Prerequisite: IFMG 300.

BTST/IFMG 644 IT Policy and Strategy 3 cr.

Investigates strategic perspectives for aligning competitive strategy, core competencies, and information systems. Students will study the development and implementation of policies and plan to achieve organizational goals. They will also define the systems that support the operational, administrative, and strategic needs of the organization, its business units, and individual employees. Students will study and apply different approaches to managing the information systems function in organizations, including examination of the dual challenges of effectively controlling the use of well-established information technologies. Students will also study the different roles of the chief information officer.

IFMG 645 IS Concepts and Architecture 3 cr.

Presents traditional and emerging IS theory at the graduate level. Organizational foundations, the decision process, investment in enterprise wide systems, legal and ethical implications of the digital business, and behavioral dimensions of systems implementation are the focus. Systems theory, quality, decision process, and ethical and behavioral implications are included. Network and enterprise wide architectures applicable to hardware and software implementation trade-offs are included.

IFMG 650 Analysis Modeling and Design 3 cr.

The traditional systems development life cycle is covered in detail and integrated with other contemporary methodologies. Structured techniques are emphasized as a forerunner to object-oriented design issues. Project feasibility, data and decision modeling, interface, I/O design, implementation, and team development are included. Student will use CASE, prototyping, and usual development tools.

IFMG 655 Data Communications and Network Technology 3 cr.

Principles and application of networking are presented with an emphasis on communications and Internet technologies. Telephone systems, hardware, software, client and server applications and techniques, managerial concerns, and web-enabled databases are covered.

IFMG 660 Data Management 3 cr.

Data management designs and development issues are discussed in detail at the graduate level with respect to large data architectures and systems. Design and development issues include logical modeling, concurrent processing, data administration, and managerial distribution concerns of security, concurrency, integrity, and recovery.

IFMG 662 Data Warehousing and Mining 3 cr.

Data warehousing and mining involve the design, implementation, and evaluation of the data warehouse. Information architectures, web-enabled warehouse design, on-line analytical processing, metadata, implementation, and evaluation are stressed. Data mining and modeling

are combined with statistics and patterning to garner business intelligence in the marketplace.

BTST/IFMG 663 Project Management for Information Technology Professionals 3 cr.

Investigates strategies for managing projects within an organizational context, including the processes related to initiating, planning, executing, controlling, reporting, and closing a project. Students will study project integration, scope, time, cost, quality control, and risk management. They will identify project champions and work with user teams, training, and documentation. Students will also investigate the role of the information systems specialist.

IFMG 681 Special Topics in Management Information Systems 3 cr.

Covers advanced or exploratory topics within the discipline. Specific content developed by instructor. Content will vary, depending upon the interests of instructor and students, with instructor choosing specific topics. May be repeated by specific approval. Prerequisite: Permission of the instructor and the Eberly College of Business and Information Technology graduate coordinator.

BTST/IFMG 682 Integrating the Enterprise, IS Function, and Technologies 3 cr.

Investigates the information systems role in transforming organizations and industries. Students will study an integrated view of the organization from an external and internal perspective. Students will also study IS's internal role in integrating the enterprise through a cohesive set of business processes and functional applications to meet business needs. Students will discuss the tactical/operational responsibilities and roles of the CIO and governance considerations that link the IS-business organizations. They will study current/emerging issues in creating and coordinating the key activities necessary to manage the day-to-day operations of the IS function. Students will also study the development of an integrated technical architecture to serve organizational needs in a rapidly changing competitive and technological environment.

IFMG 698 MBA Internship 1.5 or 3 cr.

A planned, field-based, individually designed, and faculty-supervised work-experience to enhance the student's professional competence in Business Administration and selected functional area. Maximum of 3 credits can be applied towards MBA electives. Prerequisites: Completed 15 graduate credits. Approval by department chair and graduate coordinator.

IFMG 699 Independent Study in Management Information Systems 1-3 cr.

Individual research and analysis of contemporary problems and issues in a concentrated area of study under the guidance of a senior faculty member. Prerequisite: Consent of instructor, departmental chairperson, and Eberly College of Business and Information Technology dean.

IFMG 830 MIS and Decision Making Theory 3 cr.

Introduces key theories in the area of Management Information Systems (MIS) and Decision Making (DS) as it applies to business decision making. Both MIS and DS are inter-disciplinary in nature and borrow from several disciplines like computer science, organizational studies, organizational behavior, operations management, and psychology among others. Overview of current research in the MIS/DS area is provided that will enable students to incorporate these into their own research agenda. Prerequisite: Student in the PhD business program

*Indicates dual-listed class

KHSS: Kinesiology, Health, and Sport Science

Department of Kinesiology, Health, and Sport Science

College of Health and Human Services

KHSS 510/* Exercise Prescription 3 cr.

Teaches individuals to write exercise prescriptions based upon a subject's tolerance for physical activity. Special emphasis will be given to risk factors, techniques of evaluation, drugs, injuries, environmental factors, and motivation with respect to their role in physical activity assessment. In-depth experiences working with qualified medical personnel will be provided. Prerequisite: KHSS 343.

KHSS 512/* Physical Activity and Stress Management 3 cr.

Acquisition of necessary understandings of anxiety and stress with respect to the nature, the place they hold in our society, and the intervention strategies related to physical activity. A paper relating the utilization of these techniques is required.

KHSS 513/* Physical Activity and Aging 3 cr.

Presents the major aspects of physical activity, its importance to the older adult, and the organization of an activity program. Specific attention will be given to the physiology of activity, effects of activity on growth and aging, exercise prescription, flexibility, overweight and obesity, and motivational strategies. A paper is required that deals with analysis of problems of the aged as observed from visitations to nursing homes, senior citizens' organizations, and social service agencies.

KHSS 514 Exercise Electrocardiography 2 cr.

Provides an introduction to the basic concepts of electrocardiography, including an understanding of electrophysiology, electrode lead placement, both rhythm strips and 12lead interpretation. Utilizing electrocardiograms students will also be able to recognize normal and abnormal rhythms including those ECG abnormalities brought about by exercise. ECG changes resulting from Graded Exercise Testing will also be evaluated. Prerequisite: Graduate Standing.

KHSS 515 Lifestyle Behavior Management for Physical Activity 3 cr.

Examines a variety of strategies necessary to modify health behavior with an emphasis on physical activity. Focus is placed on development of skills necessary to work with clients/patients in group leadership and group-process activities in order to assess and assist with behavior change for both the apparently healthy and those with multi-faceted chronic disease as it relates to physical activity. Prerequisite: Graduate standing.

KHSS 516 Functional Training for Strength and Conditioning 3 cr.

Focuses on comparing and contrasting the scientific principles associated with traditional strength training and functional strength training techniques. Examines a variety of new techniques found in the fitness and sport performance industry and provides practical experience for the students in both traditional and functional strength training techniques.

KHSS 517 Contemporary Issues in School and Community Health 3 cr.

Provides pedagogical strategies relevant to educators in school and community health education setting. Individual problem solving will assist students in identifying, analyzing, promoting and evaluating recent developments and issues in health.

KHSS 520/* Health Education and Promotion at the Workplace 3 cr.

Addresses basic issues and problems in planning, implementing, and evaluating health education programming in a variety of school and work-site settings. Explores agencies and programs focused on advocacy of health education services. Emphasizes knowledge and practical skills required to become a certified health education specialist.

KHSS 526 Health Science Instruction 3 cr.

An overview of health curriculum with a focus on teaching methods and media of instruction. Includes unit development, opportunities for instruction, and guidelines for maintaining professional growth. Explores current research in teaching techniques, motivational strategies, and assessment of learning within a diverse population. Prerequisites: KHSS 316, KHSS 318

KHSS 537/* Coaching Disability Sport 3 cr.

Provides an introduction to developmentally appropriate practice when coaching individuals with disabilities. Emphasizes accessible and inclusive practices that promote full participation of individuals with various disabling conditions. Explores program planning and assessment in various disability sports and games.

KHSS 550/* Curriculum and Programming in Sexuality Education 3 cr.

Designed to provide and share information that will be helpful to current and future school personnel in developing sexuality education programs in their schools and local communities.

KHSS 576 Athletic Training Program Clinical Practicum I 1 cr.

Assesses proficient psychomotor and clinical reasoning skills within the domain of athletic injury management in coordination with a one semester clinical field experience. This clinical field experience will allow each student and opportunity to practice and apply skills previously taught under the direction of a qualified preceptor within the IUP Athletic Department or an affiliated clinical site. Emphasis will be directed towards athletic taping and wrapping, contemporary immobilization and ambulation devices, protective sports equipment, transportation and transfer of the injured athlete, and basic assessment techniques.

KHSS 581 Special Topics 3 cr.

KHSS 585 Assessment and Management of General Medical Conditions in Athletic Training 4 cr.

Examines general health assessment and physical examination techniques related to the physically active. A systemic approach is used to address issues related to the anatomy, pathology, physiology, diagnostic testing, and therapeutic intervention of both non-orthopedic conditions and diseases of the human body in sport and physical activity. Prerequisite: MS in Athletic Training Major, or Instructor Permission.

KHSS 601 Sport and Society 3 cr.

Designed to acquaint the student with the reciprocal relationships between sport and physical activity as they affect human development in the societies and cultures out of which sport emerges.

KHSS 602 Sport Psychology 3 cr.

Promotes an understanding of the concepts and applied principles of sport psychology and related psychosocial variables. Different principles from sport psychology literature will be applied to sport and physical activity participants.

KHSS 603 Physiological Basis of Sport 3 cr.

An examination of the physiological factors that influence performance in sport with emphasis on the analysis of various training techniques.

KHSS 610 Coaching Management 3 cr.

Focuses on the understanding and application of techniques for coaching an athletic team. Current research on coaching strategies, psychology of sport, sociology of sport, liability management, and the physiological conditioning of athletes are emphasized. Prerequisite: None.

KHSS 615 Curriculum Design and Assessment in Health and Physical Education 3 cr.

Provides theoretical and experimental knowledge to educators regarding basic principles of curriculum design, educational assessment and evaluation. Various curriculum models will be explored, along with methods for design. Development of objectives aligned to state and national standards and types of assessments will also be included. Emphasis will be placed on planning, implementation, and evaluation of developmentally appropriate curriculum in health and physical education.

KHSS 620 Exercise Prescription for Chronic Diseases 3 cr.

Examines the medical and therapeutic considerations for exercise prescriptions, as defined by the American College of Sports Medicine, for individuals with chronic medical disorders. Competencies needed to function as clinical exercise specialist will be emphasized. Prerequisite: Permission.

KHSS 625 Management Concepts in Fitness 3 cr.

Overview of issues, challenges, and professional responsibilities involved in the management of health and fitness programs and facilities. Focuses on the management of clinical, community, commercial, and corporate fitness programs. Topics include fitness program development, organizational structure and planning, personnel issues, financial management, marketing, and risk and liability issues related directly to operating a clinical and commercial fitness program. Prerequisite: None.

KHSS 631 Motor Learning 3 cr.

Examines theories and concepts of motor control. Provides necessary skills and tools to evaluate performance, provide effective instruction, and create practice sessions that optimize acquisition and retention of movement skills. Requires a strong background in the areas of anatomical and mechanical kinesiology and basic understanding of the central nervous system operations.

KHSS 632 Assessment of Human Physiological Functions 3 cr.

Study of various physical fitness components and their contribution to a person's well-being and how to measure and evaluate physical fitness.

KHSS 634 Current Literature in Health, Fitness, and Sport 3 cr.

Focus on knowledge and demonstration of skills required for development of a master's thesis proposal. Emphasis is on research design and the statistics appropriate to analyze various types of research. Students will be involved in the identification, interpretation, and analysis of peer-reviewed research specific to the discipline of health, physical activity, and sport. Prerequisite: None.

KHSS 635 Sports Leadership 3 cr.

Theory and practice of human management with applications to sport; formal structure of organizations, goal setting, organizational personality, group processes, and leadership styles.

KHSS 637 Sport Facilities Management 3 cr.

An administrative and management course designed to prepare sport managers to develop and operate competitive, recreational, instructional, therapeutic, and multifaceted sport complexes. Course work includes planning, design, construction, budgeting, programming, staffing, equipping, administration, maintenance, safety, and rehabilitation. Three lecture hours.

KHSS 640 Research Methods for Health, Sport, and Physical Activity 3 cr.

Provides a foundation for the research process in fields related to health and human performance. Types of research, writing a research report, and evaluation of commonly used techniques for data analysis are explored. Computer statistical programs and library resources are used to

facilitate the student's development of reading and conducting research. Prerequisite: KHSS 634.

KHSS 641 Administration of Aquatic Programs 3 cr.

Examines the organizational procedures, administrative techniques, and practices employed in aquatics with special emphasis on adapted, competitive, instructional, recreational, social, and water safety programs.

KHSS 642 Design and Operation of Aquatic Facilities 3 cr.

Elements and principles of planning, design, and operation of swimming pools, waterfront facilities, and related equipment necessary for the aquatic administrator.

KHSS 645 Advanced Teaching Techniques in Physical Education 3 cr.

Provides the tools necessary to effectively design and implement unit plans of instruction in physical education. Assists in developing teaching qualities that enhance participation and encourage lifetime activity. Provides an overview of the physical education curriculum, K-12, with an emphasis on middle and high school levels. Explores recent developments in the field of physical education with emphasis on instructional strategies, assessment procedures, and use of technology.

KHSS 652 Globalization of Sports Business 3 cr.

Focuses on the application of knowledge in marketing, finance, sales, sponsorships, promotions, media, and public relations to the sports industry. Strategies specific to sports will be emphasized.

Prerequisite: None.

KHSS 655 Health and Fitness for Elementary School Children 3 cr.

Prepares students to teach health and fitness to grades K-6. Includes developmentally appropriate content and teaching strategies based on national and state standards with opportunities for teaching in peer laboratory and school settings. Reviews current issues and research on childhood health behaviors. Analyzes behavioral strategies for promoting lifetime physical activity.

KHSS 658 Emergency Management for Schools 3 cr.

Provides knowledge, tools, and skills necessary to prepare for and respond to emergency situations that could occur during the school day, at school-sponsored events and functions, or while transporting school students. Requires demonstration of appropriate response to a school emergency and skills necessary to maintain the health, safety, and welfare of students.

KHSS 670 Advanced Seminar in Adapted Physical Education 3 cr.

Provides K-12 physical education teachers with the knowledge necessary to include students with disabilities in general physical education classes. An overview of current laws, assessment, the IEP process, and information on specific disabilities as relates to physical education will be addressed. Practical experience will be provided by participation of students in the Special Needs Activity Program.

KHSS 672/* Epidemiology of Physical Activity 3 cr.

Covers physical activity epidemiology from the evidence of the relationship between physical activity and chronic disease and the assessment of physical activity and/or sedentary behavior. Explores individual and population-based lifestyle intervention efforts to enhance health behavior and promote disease prevention in diverse populations. Prerequisite: BIOL 301

KHSS 675 Fitness Technology for Health and Physical Educators 3 cr.

Through guided classroom experiences and activities, students will develop the skills necessary for incorporating physical education specific technologies into appropriate instruction in a K-12 setting. Students will use technology to collect and interpret data, design appropriate assessments, and enhance teaching strategies resulting in improved teacher effectiveness and efficiency. Students will also have an opportunity to obtain the National Association of Sports and Physical Education (NASPE) Physical Best Certification.

KHSS 676 Athletic Training Program Clinical Practicum III 2 cr.

Assesses proficient psychomotor and clinical reasoning skills within the domains of general medical evaluation, manual muscle testing, and modality application, in coordination with a one-semester clinical field experience. This clinical field experience will allow each student an opportunity to practice and apply skills previously taught under the direction of a qualified

preceptor within the IUP Athletic Department or an affiliated clinical site. Specific skills emphasized include skills related to torso, head and neck evaluation, high-fidelity simulation evaluation, manual muscle testing, therapeutic modality selection and application. Prerequisites: KHSS 577, KHSS 585, KHSS 648

KHSS 680 Seminar 3 cr.

Specific subjects will be considered through readings, reports, discussions, and guest presenters. A paper will be required. A specific title will be listed in the schedule of classes. May be repeated.

KHSS 681 Special Topics 3 cr.

KHSS 698 Internship 3-6 cr.

Prospectus must be presented by student. Objective is to provide an in-depth experience in an area of interest to the student under the guidance of a faculty member and a cooperating supervisor. Prerequisite: Faculty approval.

KHSS 699 Independent Study 1-3 cr.

Students may study intensively a subject of their interest under the guidance of a faculty member with the appropriate expertise. Prospectus must be presented by the student. Prerequisite: Approval of faculty member, department chairperson, college dean, and associate provost.

KHSS 795 Thesis 3-6 cr.

*Indicates dual-listed class

LDRS: Administration and Leadership

Department of Sociology
College of Humanities and Social Sciences

LDRS 781/881 Special Topics 3 cr.

LDRS 800 Proseminar 3 cr.

Proseminar (professional seminar) helps students to develop doctoral-level academic skills. It includes skill-building in scholarly writing, orientation to academic technologies, professional development in the academic culture, and planning strategically for dissertation research from the outset of students' program of study.

LDRS 801 Leadership Theories 3 cr.

Focuses on several leadership theories related to administering social agencies, schools, business, and industry.

LDRS 802 Leadership Applications 3 cr.

Builds on LDRS 801 and other ALS courses, synthesizing major ideas about leadership, organizations, resource constraints, organizational goals, and other germane topics. In addition,

the course will emphasize the development of critical thinking skills and the ability to synthesize materials from various sources into coherent arguments. It also stresses the importance of applying concepts from political science, sociology, and economics to better understand how organizations function and how individuals within organizations function.

LDRS 810 Nonprofit Management 3 cr.

Examines the administration and management of nonprofit organizations, including concrete aspects of program creation and operations such as boards, bylaws, 501 (c) (3) tax-exempt status, mission statements, program development, personnel policies, budgeting, marketing, strategic planning, volunteers, fundraising, public relations, lobbying, and program monitoring and evaluation.

LDRS 811 Administration in the Public Sector 3 cr.

Designed to introduce students to the study of public administration, the course focuses primarily on the administrative structures and practices of American national government and is structured around four broad topics: First, to provide students with a necessary theoretical perspective on public bureaucracy, several major schools of thought regarding organizational structure and behavior are examined. Second, the role of bureaucracy in a constitutional democracy is explored. Third, the institutional environment in which bureaucracy must function is specified, and relationships between bureaucracy and other government institutions are analyzed. Finally, the internal operation of a bureaucracy is discussed and specific functions and methods examined.

LDRS 861 Program Evaluation 3 cr.

Designed to cover major theoretical, methodological, and practical issues in program evaluation. Emphasis is given to key elements for the study of evaluation, including the history and modern concepts of evaluation; theoretical notions aligned with evaluation; design elements in evaluation studies; the setting and implementation of intervention programs; and the development, presentation, and use of evaluation results. This course will draw on previous course work in social theory, leadership, and methods. Students will use their collective knowledge to develop a synthesis of applied research geared toward assessing program processes, outcomes, and impacts and formulating actions for intervention improvements.

LDRS 898 Field Experience in Administration and Leadership Studies 3 cr.

Designed to provide the student with an opportunity to solve a practical problem associated with the leadership and administration of an organization. The student may elect to undertake a policy/problem analysis process that integrates prior substantive and analytically oriented course work. Students with full-time employment responsibilities will be permitted to focus on a problem related to their own organization, if it is compatible with the student's area of concentration or interest. Alternatively, if the student wants to explore another area or organization, he/she may do so. This course may be taken only after the student receives candidacy.

LDRS 900 Dissertation Seminar 3 cr.

Students critically examine research and theory relevant to their prospective dissertation research. Students search for and review literature related to their area of scholarship, identify

and make contact with key scholars in their fields of interest, complete a synthesis of the literature, engage in peer review, and develop a major paper that may serve as a basis for the dissertation proposal. Students will advance their skills in the processes required for effective development of a significant research project and the presentation of a literature review centered on a specific research issue, problem, or question. Prerequisite: Limited to ALS PhD students who have completed core and research comprehensive examinations.

LDRS 995 Dissertation 9 cr.

LIBR: Library

The University Libraries
Academic Affairs Division

LIBR 600 Bibliography of Music 3 cr.

Introduces graduate students to various types of music, music literature, and bibliographical tools which exist and which may be used in research in music. As a project, students prepare an extensive annotated bibliography of a music subject within their special interest.

LTCY: Literacy

Department of Professional Studies in Education
College of Education and Communications

LTCY 590 Improving Professional Practice in Instructional Settings 1-3 cr.
and

LTCY 591 Improving Professional Practice in Instructional Settings 1-3 cr.

Reviews current research in instructional practices, motivational techniques, and professional issues. May focus on any of these aspects of teaching, learning, or professional practice. May be presented with a kindergarten through grade twelve, elementary, middle school, secondary, or adult orientation.

Offered only for continuous professional development and may not be applied toward a graduate degree. Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

LTCY 600 Foundations of Literacy Instruction 3 cr.

Introduces literacy instruction which recognizes social, cultural, historical, and political perspectives. Emphasis is placed on the nature of reading and writing processes, the characteristics and developmental processes of the learner, and instructional strategies that enhance literacy in the classroom.

LTCY 607 Instruction and Learning with Literature 3 cr.

Acquaints students with examining literature, developing instructional materials using the literature, and analyzing literature in its many forms, including electronic technology. Diversity in literature and diversity in student needs will be emphasized. Students will utilize electronic technology to access children's literature from national and international libraries.

LTCY 635 Literacy in Inclusive Classrooms 3 cr.

This course examines curricular materials, teaching approaches, and strategies used in inclusive classrooms to develop the literacy skills of students who speak English as a second language, students with learning exceptionalities, and students from diverse backgrounds/cultures. The course is taught by instructors with expertise in special education, multiculturalism, and/or teaching English language learners. Prerequisite: LTCY 600

LTCY 644 Issues and Trends in the Language Arts 3 cr.

Emphasizes effective communications through the study of current trends, resources, and the contributions of research in the various areas of language arts. Special emphasis will be placed on an integrated model for organizing the language arts. Prerequisite or Co-requisite: LTCY 600.

LTCY 648 Creativity and the Elementary School Child 3 cr.

Includes a study of creative thinking and ways to develop creativity in children, including strategies and techniques to use in the classroom. Ways of measuring creativity and analyzing the role of the teacher are included. Students are encouraged to develop their own creativity.

LTCY 681 Special Topics 1 cr. to 3 cr.

LTCY 697 Seminar in Special Problems in Reading 3 cr.

Special Topics on literacy as examined through a systematic analysis of theory as it relates to practice. Students are required to study a topic of choice in depth.

LTCY 698 Analysis of Research in Literacy 3 cr.

Examines quantitative and qualitative research in reading, writing, and other literacy and language issues. Designed to ensure that students will be able to read, interpret, and evaluate statistical and ethnographic research in literacy. The use of the Internet for access to research is required. Prerequisite: LTCY 600 or permission of coordinator.

LTCY 699 Independent Study in Reading Education 1-3 cr.

The student, with the cooperation of the reading faculty member with whom he/she expects to work and his/her reading faculty advisor, engages in a study individually or with a small group on some program or field not clearly defined in existing courses. Prerequisite: Permission of the coordinator.

LTCY 701 Assessment and Acceleration 3 cr.

Examines traditional and current teaching strategies, formal and informal assessment, and theory and research of literacy difficulties. Emphasis is placed on intervention. A knowledge of basic computer technology is required. Electronic technology, including databases, spreadsheets, and the Internet, will be incorporated. Prerequisite: LTCY 600.

LTCY 702 Reading and Writing in the Content Areas 3 cr.

Emphasizes strategies, techniques, and materials related to literacy and study skills in the content areas at elementary and secondary levels. A variety of materials, including electronic technology, will be incorporated. Prerequisite: LTCY 600 or permission of coordinator.

LTCY 705 Organization and Administration of Reading/Writing Programs 3 cr.

Acquaints students with issues in analyzing and improving curriculum, evaluating approaches to instruction, providing guidelines for selection of textbooks, materials, and technology, exploring challenges of family and community involvement, implementing changes, and conducting staff development. Emphasizes the role of reading specialist, resource specialist, supervisors and classroom teachers. Prerequisites or Co-requisites: LTCY 607, 644, 698, 701, and 702.

LTCY 770 Practicum and Seminar for Reading Specialists I 3 cr.

Supervised experience working with K-12 students who experience difficulty with reading/writing. Assessment techniques such as observation, surveys, interviews, conferences with families, and formal and informal testing are used to determine student's instructional needs. An intervention plan for improving student's reading/writing is developed and implemented. Meeting the needs of students in inclusive classrooms is stressed. Candidates maintain records of student's progress and develop a case report for professionals. A teacher work sample is developed. Candidates display leadership skills, engage in reflective practice, and demonstrate dispositions characteristic of professional literacy educators. Supervision is provided by faculty with Reading Specialist certification. Prerequisite: LTCY 702 and LTCY 705.

LTCY 771 Practicum and Seminar for Reading Specialists II 3 cr.

Supervised experience working with K-12 students who experience difficulty with reading/writing. Assessment techniques such as observation, surveys, interviews, conferences with families, and formal and informal testing are used to determine student's instructional needs. An intervention plan for improving student's reading/writing is developed and implemented. Meeting the needs of students in inclusive classrooms is stressed. Candidates maintain records of student's progress and develop a case report for professionals. A teacher work sample is developed. Candidates meet with peers in seminars, review research-based interventions, display leadership skills, engage in reflective practice, and demonstrate dispositions characteristic of professional literacy educators. Supervision is provided by faculty with Reading Specialist certification. Prerequisite: LTCY 702 and LTCY 705

LTCY 795 Thesis 1-6 cr.

Prerequisite: Permission of the coordinator.

MATH: Mathematics

Department of Mathematics

College of Natural Sciences and Mathematics

MAED 611 Algebra for Secondary Teachers 3 cr.

In this advanced course, practicing teachers will explore essential components in algebra, attain a deep understanding of the content that they will teach, develop the habits of the mind of a mathematical thinker, identify effective ways to help secondary students to build mathematical understanding, and demonstrate flexible, interactive styles of teaching. Topics will include equations and systems of equations, inequalities, polynomials, structures, fitting lines to data, and matrices. Furthermore, students will examine real-world applications, standards and curricula, and when appropriate, incorporate technology to enhance learning. Prerequisite: Appropriate major or permission of the instructor.

MAED 612 Geometry for Secondary Teachers 3 cr.

Explores essential components of geometric reasoning; extends understanding of the underlying concepts of geometry taught at the secondary level; examines appropriate use of technology, innovative curricula and materials, and methods, research and standards related to teaching geometry concepts at the secondary level. Prerequisite: Appropriate major or permission of the instructor.

MAED 613 Probability and Statistics for Secondary Teachers 3 cr.

Explores essential components of statistical and probabilistic reasoning; extends understanding of underlying concepts of probability and statistics taught at the secondary level; examines appropriate use of technology, innovative curricula and materials, and methods, research and standards related to teaching probability and statistics concepts at the secondary level. Prerequisites: Appropriate major or permission of the instructor

MAED 614 Pre-calculus and Discrete Math for Secondary Teachers 3 cr.

Explores essential components of pre-calculus and discrete mathematics; extends understanding of underlying concepts of pre-calculus and discrete mathematics taught at the secondary level; examines appropriate use of technology and methods, research, curricula and standards related to teaching pre-calculus and discrete mathematics at the secondary level. Prerequisite: Appropriate major or permission of the instructor.

MAED 616 Writing in Mathematics Education 3 cr.

Topics include using writing as a teaching tool, how to introduce writing into K-12 mathematics classes, and the types of writing that can be done. Both formal and informal mathematics writing will be explored. Rubrics and other forms of writing assessment will also be examined. Prerequisite: Appropriate major or permission of the instructor.

MAED 652 Differentiation Instruction in Secondary Mathematics 3 cr.

Participants will deepen their knowledge about topics relating to essential components of differentiated instruction in a secondary math classroom through the exploration of tools, simulations, discussions, and research. They will apply this knowledge through the creation of original differentiated products and will reflect on how differentiated instruction connects to their work in the classroom. Throughout the course, differentiated strategies will be embedded and modeled. Prerequisite: Appropriate major or permission of the instructor.

MAED 660 Survey of Research in Mathematics Education 3 cr.

Provides students with an introduction to research issues and trends in mathematics education. Students will read, interpret, and synthesize research articles in mathematics education related to past and current issues and trends. Focus is on how research informs and has informed the practice of teaching mathematics. Prerequisite: Appropriate major or permission of the instructor.

MATH 518/* Sampling Survey Theory and Its Applications 3 cr.

Directed to the student who is or will be doing quantitative research, commissioning large-scale surveys, and evaluating the results. Sampling techniques and statistical principles underlying their use will be introduced. Consideration will be given to the practical problems associated

with implementation. Prerequisites: (for non-Math majors) MATH 214, MATH 216, MATH 217, or GSR 516.

MATH 521-522 Advanced Calculus I, II 3 cr.

A rigorous investigation of continuity, differentiation, and integration on real p -dimensional space. The Riemann-Stieltjes integral, infinite series, and infinite series of functions are also studied. Prerequisite: Permission of the advisor.

MATH 523/* Complex Variables I 3 cr.

Introduces fundamental concepts of complex analysis and includes the following topics: complex numbers, functions, sequences, analytic functions, elementary functions, complex integration, power series, Laurent series, singular points, calculus of residues, infinite product and partial fraction expansion, conformal mapping, and analytic continuation. Prerequisite: Permission of the advisor.

MATH 525/* Applied Mathematical Analysis I 3 cr.

Provides the necessary background for an understanding of mathematical programming, proofs of convergence of algorithms, convexity, and factorable functions. Develops necessary concepts in matrix theory which are required to develop efficient algorithms to solve linear and nonlinear programming models. Prerequisite: Calculus sequence, introductory linear algebra, or permission of the instructor.

MATH 527/* Topology 3 cr.

Basic topological concepts, including some topological invariant relationships between topology and other disciplines of mathematics, are discussed. Prerequisites: Differential and Integral Calculus.

MATH 545/* Deterministic Models in Operations Research 3 cr.

An introductory course on using the basic tools of solving deterministic models in operations research. Topics include optimization techniques and applications such as linear programming, nonlinear and dynamic programming, transportation models, and network models. In addition, sensitivity analysis, duality, simplex methods, and integer programming are discussed. Students will use technology to solve problems and interpret the results. Prerequisites: Two semesters of calculus and one semester of linear algebra.

MATH 546/* Probabilistic Models in Operations Research 3 cr.

A survey of probabilistic methods for solving decision problems under uncertainty. Probability review, decision theory, queuing theory, inventory models, and Markov chains are covered. Students will use technology to solve problems and interpret the results. Prerequisites: Two semesters of calculus, one semester of introductory linear algebra, and introductory probability and statistics.

MATH 547/* Modeling and Simulation 3 cr.

Construction and solution of mathematical models. Emphasis is on applications in areas such as logistics, natural and social sciences, and manufacturing. Discrete and continuous system models are analyzed using mathematical and computer-based methods. Introduction to computer

simulation. Introductory course in differential equations is recommended but not required. Prerequisites: Two semesters of calculus, one semester of introductory linear algebra, and introductory probability and statistics.

MATH 551/* Numerical Methods for Supercomputers 3 cr.

Supercomputers make use of special computer architectures—vector and parallel processors—in order to achieve the fastest processing speed currently available. Students will be introduced to these features and will learn how numerical algorithms can be constructed to exploit supercomputers' capabilities. Students will gain practical experience in programming for the Cray YMP, in incorporating existing scientific software packages into user-written programs, in submitting remote jobs to the Pittsburgh Supercomputer Center, and in producing animated graphical output to summarize the typically large volume of output data generated by large scientific programs. Prerequisite: Permission of the instructor.

MATH 553/* Theory of Numbers 3 cr.

Elementary properties of divisibility, congruences, Chinese remainder theories, primitive roots and indices, quadratic reciprocity, diophantine equations, and number theoretic functions. Prerequisites: Differential and Integral Calculus.

MATH 563/* Mathematical Statistics I 3 cr.

Probability theory necessary for an understanding of mathematical statistics is developed; applications of the theory are given, with emphasis on binomial, Poisson, and normal distributions. Sampling distributions and the central limit theorem are developed. Prerequisites: Differential and Integral Calculus.

MATH 564/* Mathematical Statistics II 3 cr.

Multivariate distributions, properties of the moment generating function, change of variable technique. Chi-square distribution, estimation, confidence intervals, testing hypotheses, contingency tables, goodness of fit. Many practical applications. Use of calculating machines and computers where appropriate. Prerequisite: MATH 563.

MATH 571/* Linear Algebra 3 cr.

Theory of vector spaces and linear transformations, applications to linear equations, determinants, and characteristic roots are studied.

MATH 576-577 Abstract Algebra I, II 3 cr.

Basic algebraic structures such as groups, rings, integral domains, and fields. Designed to develop ability to construct formal proofs and work within an abstract axiomatic system. Polynomial rings, factorization, and field extension leading up to Galois theory.

MATH 581-583 Topics Seminars in Mathematics 3 cr.

Special Topics going beyond the scope of regularly offered courses. Offered per student interest/available staff. Students may take more than one topic seminar with approval of advisor. Prerequisite: Consent of instructor.

MATH 610 Real-Data Approach to Teaching Mathematics 3 cr.

Presents the content knowledge as well as effective teaching strategies to incorporate real data in the teaching of grades K-12 mathematics curriculum. Students will learn to integrate real data into the teaching of numerical concepts, pre-algebra, algebra, probability, statistics, geometry, and advanced mathematics. The intended audience is K-12 teachers who wish to learn content and teaching methods to integrate real data into the teaching of mathematics. Prerequisite: Permission of the instructor.

MATH 625 Analysis for Applied Mathematics 3 cr.

A graduate-level introduction to classical applied mathematics. Topics include vector spaces and orthogonality, eigenvalue problems, quadratic forms, vector calculus in n -space, infinite series and applications, Fourier series, least squares approximation, and systems of differential equations. Prerequisites: Calculus sequence and introductory linear algebra or permission of the instructor.

MATH 631 Foundations of Mathematics 3 cr.

Designed to acquaint students with logical techniques used in proof and set theory. Topics include symbolic logic, rules of inference, validity of arguments, algebra of sets, cardinal numbers, the well-ordering property, and the Axiom of Choice.

MATH 640 Numerical Mathematics 3 cr.

Intended for graduate students in mathematics and the sciences, this course will cover solving mathematical problems using computer algorithms, in particular root-finding methods, direct and iterative methods for linear systems, nonlinear systems, eigenvalue problems, and differential equations. Prerequisites: Calculus sequence, introductory linear algebra, and programming literacy, or permission of the instructor.

MATH 641 Ordinary and Partial Differential Equations 3 cr.

Solution techniques for linear and solvable nonlinear ordinary and partial differential equations are covered. A variety of methods including series solutions, operator methods, Laplace transforms, characteristics, and separation of variables are demonstrated for numerous applications to physical problems. Systems of differential equations, associated phase plane, and stability theory are addressed. Solutions and applications for the equations of mathematical physics are discussed, including the heat equations, Laplace's equations, and the wave equation. Prerequisite: MATH 625 or permission of the instructor.

MATH 643 Graphs, Networks, and Combinatorics 3 cr.

Introduces elementary concepts of graph theory and its applications and the fundamentals of combinatorics. Systematic methods for counting are given via the study of arrangements and generating functions through the use of classical and analytical techniques. Prerequisite: Calculus sequence.

MATH 645 Nonlinear Programming Models 3 cr.

Examines algorithms for solving nonlinear programming (optimization) models. Also concerned with the theory of nonlinear optimization and with characteristics of optimal points. Optimization models of real-world problems which can be solved by nonlinear programming methodology are also presented. Prerequisites: MATH 525 and MATH 545 or equivalent

courses.

MATH 647 Advanced Simulation 3 cr.

An in-depth study of computer simulation techniques using simulation software. Emphasis is on discrete-event systems, although continuous-event systems will also be modeled. Model validation and verification including statistical analysis. Prerequisites: MATH 545 and MATH 563.

MATH 650 Themes in the History of Mathematics 3 cr.

Traces the historical development of major themes in mathematics from their origins to their modern forms. Themes include mathematics of the heavens and earth (trigonometry), solving algebraic equations, areas and volumes (calculus), and optimization. Prerequisite: A calculus sequence.

MATH 651 Seminar in Teaching Junior High School Mathematics 3 cr.

Explores problems of teaching mathematics at junior high level. Emphasis on a discovery, lab-oriented approach to teaching. Prerequisite: Permission of instructor.

MATH 652 Seminar in Teaching Senior High School Mathematics 3 cr.

National and international forces shaping today's mathematics programs, curriculum development and research, art of generating interest, formation of concepts, proof, problem solving, generalization, and evaluation. Special attention to teaching topics from algebra and calculus and modern approaches to teaching geometry and trigonometry. Prerequisite: Permission of instructor.

MATH 654 Curriculum and Supervision in Mathematics 3 cr.

Basic principles underlying effective mathematics curriculum from both a theoretical and an experimental viewpoint. Investigates supervisor's role as source of stimulation, leadership, and expertise in teaching mathematics.

MATH 655 Projective Geometry 3 cr.

Introduces Klein's formulation of geometry of the invariant theory of a given set under a given group of transformations and develops projective spaces of one and two dimensions and conics and quadratic forms. Prerequisite: Undergraduate courses in linear algebra and geometry.

MATH 665 Applied Regression Analysis and Design of Experiments 3 cr.

Designed as an applied course in regression analysis, analysis of variance, and experimental design. The student is introduced to least squares, the matrix approach to linear regression, the examination of residuals, dummy variables, the polynomial model, best regression equations, multiple regression, and mathematical model building. Statistical software is used for the data analysis. Analysis of variance (ANOVA) and design of experiments including one- and two-factor analysis, randomized block designs, and Latin squares are covered. Both the ANOVA and regression approaches to these concepts are introduced, as well as the appropriate nonparametric alternatives. Prerequisite: MATH 564 or permission of the instructor.

MATH 667 Applied Statistical Methods 3 cr.

Focus will be on the understanding and the application of statistical techniques in sampling, categorical data analysis, and time series. Statistical software is used for data analysis.

Prerequisite: MATH 564 or permission of the instructor.

MATH 681-683 Special Topics in Mathematics 3 cr.

Special Topics in graduate mathematics beyond the scope of regularly offered graduate classes.

Offered as student interest and available staff permit. With approval of the advisor, more than one Special Topics class may be taken. Prerequisite: Consent of the instructor.

MATH 684 Topics in Operations Research 3 cr.

Special Topics in operations research beyond the scope of regularly offered graduate courses.

Offered as student interest and available staff permit. Prerequisite: Permission of the instructor.

MATH 685 Topics in Probability and Statistics 3 cr.

Special Topics in probability and statistics beyond the scope of regularly offered graduate classes. Offered as student interest and available staff permit. Prerequisite: Permission of the instructor.

MATH 688 Topics in Applied Mathematics 3 cr.

Special Topics in applied mathematics beyond the scope of regularly offered graduate classes.

Offered as student interest and available staff permit. Prerequisite: Permission of the instructor.

MATH 698 Internship 1-6 cr.

Positions with participating companies or agencies provide students with experience in mathematics-related work under the supervision of agencies and faculty.

MATH 699 Independent Study in Mathematics 3 cr.

Under the guidance of faculty member, a student may study some area of mathematics not included in the regular courses.

MATH 795 Thesis 3 cr.

*Indicates dual-listed class

MEDU: Master's in Education

****This program has been placed in moratorium.****

Department of Professional Studies in Education

College of Education and Communications

MEDU 590 Improving Professional Practice in Instructional Settings 1-3 cr.

and

MEDU 591 Improving Professional Practice in Instructional Settings 1-3 cr.

Reviews current research in instructional practices, motivational techniques, and professional issues. May focus on any of these aspects of teaching, learning, or professional practice. May be

presented with a kindergarten through grade twelve, elementary, middle school, secondary, or adult orientation. Offered only for continuous professional development and may not be applied toward a graduate degree. Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

MEDU 761 Community and Culture 6 cr.

This team-taught Thematic Unit provides graduate students with a strong theoretical and practical knowledge base of community and the culture in which the school resides. The Thematic Unit also emphasizes indirect educational variables such as community, culture, and language diversity that directly affect all public school learners. Upon the completion of this Thematic Unit, students will possess higher levels of self-efficacy and will be empowered to engage with the school, the community, and the culture in an educational and social context.

MEDU 762 Instruction in the Inclusive Classroom 6 cr.

This team-taught thematic unit is designed to prepare graduate students with a strong theoretical and practical knowledge base which supports instruction of all diverse learners included in a general education classroom. Research-proven strategies, especially those that relate to cognitive, humanist, and behavioral views of instruction, classroom management, and motivation of diverse learners included in elementary, middle, and secondary classroom, will be explored. Students will learn how to use a model of reflective thinking to assess the effectiveness of instruction and improve the outcomes for all students.

MEDU 763 Teacher as Researcher 6 cr.

This Thematic Unit provides teachers with the ability to use various research methods that will help them obtain practical knowledge that can be incorporated into their daily classroom practices. These research skills are intended to: a) improve teachers' awareness of and relationships to their students' lives; and b) stimulate the formation of relevant and sound teaching strategies that incorporate their findings into the classroom in ways that recognize, validate, and build upon their students' prior socialization, knowledge, and "meaning-making" strategies. This Thematic Unit will familiarize students with the conceptual frameworks, methods, and research traditions from both quantitative and qualitative perspectives.

MEDU 764 Educational Change and Technology 6 cr.

This team-taught Thematic Unit prepares graduate students with a strong theoretical and practical knowledge base focusing on a number of educational changes occurring in schools today. Topics include (but are not limited to) the possibilities and challenges of technology and the Information Superhighway, school organization, program design, instructional strategies, assessment practices, and the roles and relationships of educators, families, and community.

MEDU 765 Curriculum and Instruction 6 cr.

This team-taught Thematic Unit prepares graduate students with a strong theoretical and practical knowledge of a variety of instructional design and delivery strategies. Through critical inquiry, students explore the organizational, academic, political, and social issues of curriculum and instruction. This Thematic Unit fosters and supports the concept of the teacher-reflective practitioner. Students are encouraged to link theory and practice through the relationship of projects and actual day-to-day classroom practice. The many facets of instructional design and

delivery also invite and support development of students' research assignments.

MEDU 766 Teacher as Leader 6 cr.

What are the attributes of a teacher leader? What impact does adult development have on classroom teaching strategies? These two questions provide the overall focus for the Teacher as Leader Thematic Unit, which presents a variety of teacher leadership models as well as the theories related specifically to teachers and adult development. Students plan and implement specific projects in their own schools that relate to these two variables. In addition, students are required to research and write papers and to develop simulations to enhance their understanding of these theories and models.

MGMT: Management

Department of Management

Eberly College of Business and Information Technology

MGMT 500 Compensation Management 3 cr.

Studies the policies and programs that help managers design and administer compensation systems for private- and public-sector enterprises. Includes motivation theories and practice in designing of compensation systems. Prerequisite: MGMT 300 or equivalent.

MGMT 501 Management Development and Training 3 cr.

Principles, problems, and procedures in planning, organizing, directing, and controlling all aspects of training and development programs in business enterprise. Methods of improving and development of managerial skills are emphasized. Prerequisites: MGMT 300, 310, or equivalent of both.

MGMT 503 Small Business Planning 3 cr.

Integrates the content of much of the business core and relates it to the business planning for small businesses and entrepreneurial efforts. The student will be introduced to the concepts which will support the development of an effective business and marketing plan.

MGMT 505 Organizational Staffing 3 cr.

Focuses on the "staffing" or "employment" subsystem of the human resource management function and deals with the theoretical, technical, administrative, and legal issues involved in the recruitment, selection, placement, transfer, and promotion of individuals by organizations. Topics covered include human resource planning, job analysis, job descriptions and job specifications, recruitment and selection processes, equal employment opportunity and affirmative action, reliability and validity of selection instruments and techniques, and contemporary issues in selection. Prerequisites: MGMT 300 and MATH 214 or equivalent of both.

MGMT 534 Quality Management 3 cr.

Emphasizes the philosophy that quality is an organization-wide phenomenon that influences every aspect of operations. An overview of current quality management philosophies and tools and techniques for managing quality in any organization. Prerequisite: MATH 214 or equivalent.

MGMT 537 Supply Chain Management 3 cr.

Deals with the design and evaluation of supply chain systems with a focus on strategic and technological issues. These concepts will be developed through exploration of contemporary practices, case studies, and research as analytical frameworks of Supply Chain Management. Theoretical and practical understanding of manufacturing and service planning and control, including systems modeling, purchasing and sourcing, logistics, strategic alliances, inventory management, scheduling, etc. Manufacturing and service technologies and trends are also emphasized. Computer applications are used for understanding the interrelationships between various components of Operations System.

Prerequisite: MGMT 330 or equivalent.

MGMT 540 Introduction to Energy Management 3 cr.

Introduction to the global energy markets and business with a particular emphasis on hydrocarbon based resources including petroleum, natural gas and coal resources. Also includes exposure to nuclear, hydroelectric, solar, wind and other "alternative" energy technologies.

Prerequisite: Acceptance into the MBA program.

MGMT 551 International Management 3 cr.

Provides a general foundation on managing multinational corporations (MNCs). Examines the macro- and structural-level issues of MNCs. Focuses on planning, organization structure, managerial decision making, and human resource management in global structures and differences between MNCs and domestic organizations. Prerequisite: MGMT 310 or equivalent.

MGMT 554 International Competitiveness 3 cr.

The study of the most important challenges that face nations and firms alike in gaining or restoring competitiveness. Focuses on factors that determine the success of nations and their firms in highly dynamic world markets. Various theories, models, and cases dealing with competitive advantage are examined. Prerequisite: MGMT 350 or equivalent.

MGMT 561/* Business Leadership Theory 3 cr.

This course introduces the student to various leadership styles such as autocratic, laissez-faire, transformational, transactional, visionary, and others as they relate to today's global business/corporate environment. These styles and their effectiveness as well as examples of application will be discussed.

MGMT 562/* Applied Business Leadership Skills 3 cr.

The focus will be on current leadership styles and applications in business. The effectiveness of these styles will be critically examined and evaluated with a cross-culture emphasis. Advanced, innovative, and exploratory business leadership topics and their effect on the behavior of employees, cooperation, and productivity will be discussed. Prerequisite: MGMT 561.

MGMT 571 Organizational Launch and New Venture Development 3 cr.

Student teams write and present business plans for new ventures. The emphasis of this intensively interactive and uniquely structured course is on applying concepts and techniques studied in various functional areas to the new venture development environment. In preparing the business plan, students learn to screen for effective venture ideas, identify and define the

fundamental issues relevant to the new venture, identify the venture's market niche and define its business strategy, and determine what type of financing should be raised—how, when, by whom, and how much. A solid understanding of business basics is required. Actual business plans are used to address these issues.

Prerequisite: MGMT 310.

MGMT 572 Organizational Entrepreneurship 3 cr.

One of the most consistent patterns in business is the failure of leading companies to stay atop their industries when technologies or markets change. There are a variety of reasons for this, including bureaucracy, poor planning, not-invented-here syndrome, etc., but there are no guarantees in today's high-tech industries of continued success for the leaders. This class will explore the "hows" and "whys" some companies are able to retain their competitive edge and others are not.

Prerequisite: MGMT 310 or equivalent.

MGMT 581 Special Topics in Management 1-3 cr.

Covers advanced or exploratory topics within the discipline. Specific content is developed by the instructor. Content will vary, depending upon the interests of the instructor and the students' need and demand for the advanced or exploratory topic. Prerequisite: Permission of instructor and Eberly College of Business and Information Technology graduate coordinator.

MGMT 613 Organizational Analysis 3 cr.

An integrative course oriented toward an empirical analysis of the phenomena and theories of large, complex, formal organizations. Intergroup phenomena are also treated as they pertain to the larger organization. Special study is made of the organization as an economic, decision-making, bureaucratic, and political system. The analysis and design of organizations are viewed from a number of perspectives, including classical theory and case analysis, to illustrate and extend the major topics of the course.

Prerequisite: MGMT 310.

MGMT 623 Seminar in Personnel 3 cr.

Designed to offer the MBA student the opportunity to research, study, and discuss various theories, principles, concepts, and issues of current interest to business and personnel managers. The case method will be emphasized, and the focus or theme of the seminar may be different each time it is offered. Prerequisite: MGMT 613.

MGMT 635 Seminar in Management and Organizational Leadership 3 cr.

Studies of theory and research in the leadership of groups and organizations with application to the management fields of business, industry, and labor. The debate, research, and study of controversial leadership issues of current interest to management and preparation of a research paper by the student in his/her occupational interest area are required. Prerequisite: MGMT 613.

MGMT 637 Operations Management 3 cr.

Acquaints the student with a broad range of strategic, tactical, design, and operating (day-to-day) decisions within the operations function in both service-providing and goods-producing businesses. Emphasis will be on the new paradigm of operations management with focus on

current technologies, concepts, philosophies, and managerial practices. Students will obtain a comprehensive insight on a wide variety of topics, including management of quality, productivity, technology, and inventory, product and process design, facility location and layout, project management, service, and manufacturing management.

MGMT 650 International Business 3 cr.

Provides the student with the knowledge needed for operating effectively in a global economy. Examines the operations of firms functioning in the global market place. Focuses on how these companies function in a globally integrated economy through sophisticated networks of alliances, mergers and acquisitions, and integrated systems of knowledge and product flows. The course highlights the necessity for companies to balance the need for global integration while responding to national/cultural variations.

MGMT 651 International Management 3 cr.

Study of theories and problems of management in multinational corporations (MNCs). Examines the macro- and structural-level issues of MNCs. Focuses on planning, organization structure, managerial decision making, human resource management in global structures, and differences between MNCs and domestic organizations.

MGMT 672 Innovation and Entrepreneurship 3 cr.

Introduces students to the concepts of innovation and entrepreneurship and demonstrates how each of these concepts is an important component of the growth and success of organizations of any size. Topics will include design thinking, new product development and business plans. Emphasizes developing a creative mindset and developing creative confidence. In many industries, innovation has become a critical element of success and globalization has only increased these pressures. Presents a strategic process to nurture creativity, develop innovative ideas into innovative products and services, and commercialize these efforts. Prerequisite: Graduate Standing.

MGMT 681 Special Topics in Management 3 cr.

Covers advanced or exploratory topics within the discipline. Specific content developed by instructor. Content will vary, depending upon the interests of instructor and students, with instructor choosing specific topics. May be repeated by specific approval. Prerequisite: Permission of the instructor and of the Eberly College of Business and Information Technology graduate coordinator.

MGMT 695 Business Policy 3 cr.

Provides the graduate student an opportunity to utilize, integrate, and apply the theories, concepts, principles, and tools acquired during his/her business education (accounting, finance, marketing, management, management information systems, statistics, etc.) to real-world business problems and situations. Utilizes lectures, case studies, library research, field research, simulations, role playing, group decision making, and other strategic planning exercises. Prerequisite: 15 hours of graduate business courses.

MGMT 698 MBA Internship 1.5 or 3 cr.

A planned, field-based, individually designed, and faculty-supervised work experience to

enhance the student's professional competence in Business Administration and selected functional area. Maximum of 3 credits can be applied towards MBA electives. Prerequisites: Completion of 15 graduate credits and approval of department chair and graduate coordinator.

MGMT 699 Independent Study in Management 1-3 cr.

With the approval of the department, students will select one or more topics of critical importance in the field and will meet with faculty for independent reading, analysis, and evaluation. Prerequisite: Approval of department chairperson and Eberly College of Business and Information Technology graduate coordinator.

MGMT 795 Thesis 4-6 cr.

For students writing the thesis, MGMT 795 should be scheduled for the semester in which they plan to complete their work. The thesis is a committee thesis (4-6 cr.), for which the student's advisor, two additional faculty members, the Eberly College of Business and Information Technology graduate coordinator, and/or the representative of the dean of the Eberly College of Business and Information Technology may constitute the committee.

MGMT 820 Organizational Behavior 3 cr.

Introduces current theories in organizational behaviors to develop critical skills of integration, analysis, and building of new research frameworks. Topics examined in a seminar setting will include group dynamics, leadership, motivation, alternative theories of the firm, organizational strategy, structure and performance. Prerequisite: Student in the PhD in Business program.

MGMT/MKTG 860 Global Competitiveness and Sustainability 3 cr.

Integrates business strategies with leadership practices that will ensure corporate growth while contributing purposefully to the creation of a healthy and sustainable natural environment. Provides theoretical frameworks and applications that enables organizations to cope with emerging business and societal challenges and generates positive business impact in the global marketplace. Introduces students to current research in the field. Prerequisite: Student in the PhD in Business program.

MGMT 880 Global Supply Chain Management – Theory and Practice 3 cr.

This course provides doctoral students an overview of the literature, theories, and practical aspects of the vast field of supply chain management. Students will learn how customer value can be added during different stages of the supply chain including product innovation and introduction, purchasing, operations, distribution, logistics, marketing and sales. Prerequisite: Student in the PhD in Business program.

MGMT/FIN 895 Doctoral Seminar in Business 3 cr.

Introduces Ph.D. students to basic and applied research in a specific area of business management, marketing, finance, supply chain, human resources, information systems, accounting, international business and entrepreneurship. Prerequisite: Student in the PhD business program.

MGMT/FIN 995 Doctoral Dissertation in Business 1-12 cr.

A culminating scholarly activity requiring independent original research, literature review, data collection, analysis, and written and oral dissemination of findings. Dissertation defense is required. Prerequisite: Completion of PhD in managerial coursework and comprehensive exams

MKTG: Marketing

Department of Marketing

Eberly College of Business and Information Technology

MKTG 521/* Marketing Research 3 cr.

Research procedures and techniques applicable to problem solving in the marketing field. Critical analysis of research techniques with considerable emphasis placed on the use of information gathered.

Prerequisite: MKTG 320.

MKTG 530/* International Marketing 3 cr.

International marketing is analyzed with consideration given to the significance of government regulation, organization structures of export and import enterprises, and credit policies.

Prerequisite: MKTG 320.

MKTG 531 Business-to-Business Marketing 3 cr

Concerned with the major activities involved in the marketing of industrial goods and services, including the industrial marketing system, marketing information needs of the industrial firm, industrial marketing implementation and control, and channel, pricing, product, and promotional strategies for industrial goods. Prerequisites: MKTG 603

MKTG 533 Advertising 3 cr.

An introduction to the principles, practices, and creations of advertising. Use of various media and legal, economics, social, and ethical aspects of advertising are also considered. Prerequisite: MKTG 603.

MKTG 534 Marketing Logistics 3 cr.

This upper-division course focuses on planning, organizing, and controlling the marketing logistics function. In addition to the acquisition and application of management science methods, students will integrate and apply previously gained knowledge to analyze and solve complex marketing logistics problems. Areas of major concentration include facility location, transportation, inventory management, and customer service. Prerequisites: MKTG 320 and MGMT 330 or equivalent of each.

MKTG 539/* Internet Marketing 3 cr.

Presents a strategic framework for developing marketing strategies on the Internet. Extends the marketing mix framework to e-commerce using current theories and applications in on-line product, on-line pricing, web-based marketing communication, and distribution strategies. Other topics include marketing research on the Internet, electronic retailing, Internet-based customer relationship management, and legal-ethical dimensions of e-marketing. Students will use

Internet-based on-line marketing cases. Prerequisite: MKTG 320 or equivalent.

MKTG 540 Direct Marketing 3 cr.

Introduces students to the role and nature of Direct Marketing including its current theory and practice. Topics include designing and implementing (1) Direct mail marketing (2) Telemarketing (3) Catalog Marketing (4) E-mail Marketing (4) Web/Internet based direct marketing for consumer and industrial markets. Case studies and applications will be utilized. Social, public policy and legal issues in direct marketing will also be explored. Pre-requisites: MKTG 603.

MKTG 543/* New Product Design and Branding 3 cr.

Discusses the new product design, development, branding and launch process companies use to bring a new concept to market by satisfying customer's unmet needs. It blends the perspectives of marketing, design, and the process of product creation. A step-by-step process from product planning and concept generation to commercialization and product launch planning will be covered. Prerequisite: MKTG 603.

MKTG 544/* Green Marketing 3 cr.

Entails a diverse perspective to understanding the impact of human consumption on the environment and development of marketing strategies to improve the human-environment interaction through creation, communication, and delivery of superior value and customer relationship management. Prerequisite: MKTG 603.

MKTG 545/* Social Media Marketing 3 cr.

Explores the online marketing activities, practices, and interactions of individuals and organizations using conversational electronic media. Assorted social media interactive networking tools and applications will be examined. Students will study and develop social media marketing programs. Prerequisite: MKTG 603.

MKTG 546/* Marketing Ethics 3 cr.

Applies major ethical theories to marketing problems, focuses on resolving dilemmas and vested interests of primary and secondary stakeholders, and addresses ethical issues of importance to marketing managers. Various topics cover ethical issues in relation to strategic planning, marketing research, product, pricing, distribution, and promotion decisions. The course also discusses issues concerning digital ethical marketing, marketing ethics in global context, and managing and leading ethical marketing systems. Prerequisite: MKG 603.

MKGT 550 Marketing Strategy 3 cr.

Designed to develop marketing and business decision-making skills to evaluate real-world business situations, analyze marketing problems and scenarios, and produce solutions in the form of marketing and business strategies. Involves analysis based on quantification of marketing decisions and problem-solving scenarios using exercises and in-depth case studies which develop analytical reasoning. Integrates knowledge of marketing and other business management functions into marketing strategy development, implementation, and control using either a

marketing plan or marketing simulation exercises. Readings on classic and emerging issues will provide applied perspectives of marketing in the business environment. Prerequisite: MKGT 603.

MKTG 581 Special Topics in Marketing 1-3 cr.

Covers advanced or exploratory topics within the discipline. Specific content is developed by the instructor. Content will vary, depending upon the interests of the instructor and the students' need and demand for the advanced or exploratory topic. Prerequisite: Permission of instructor and Eberly College of Business and Information Technology graduate coordinator.

MKTG 603 Marketing Management 3 cr.

An analytical and quantitative approach to decision making and the planning, development, implementation, and control of a marketing program. Prerequisite: MKTG 320.

MKTG 606 Advances in Global Marketing 3 cr.

Deals with current and classical global marketing issues including the globalization phenomenon, firms' marketing strategies directed at dealing with it, and other emerging issues in the global marketplace. The discussion will specifically target managerial and strategic aspects pertaining to the firm's foreign market entry, product, pricing, promotion, and distribution decisions in the global context.

MKTG 650 International Business 3 cr.

Provides the student with the knowledge needed for operating effectively in a global economy. Examines the operations of firms functioning in the global market place. Focuses on how these companies function in a globally integrated economy through sophisticated networks of alliances, mergers and acquisitions, and integrated systems of knowledge and product flows. The course highlights the necessity for companies to balance the need for global integration while responding to national/cultural variations.

MKTG 681 Special Topics in Marketing 3 cr.

Covers advanced or exploratory topics within the discipline. Specific content developed by instructor. Content will vary, depending upon the interests of instructor and students, with the instructor choosing specific topics. May be repeated by specific approval. Prerequisite: Permission of the instructor and of the Eberly College of Business and Information Technology graduate coordinator.

MKTG 698 MBA Internship 1.5 or 3 cr.

A planned, field-based, individually designed, and faculty-supervised work-experience to enhance the student's professional competence in Business Administration and selected functional area. Maximum of 3 credits can be applied towards MBA electives. Prerequisites: Completion of 15 graduate credits and approval of department chair and graduate coordinator.

MKTG 699 Independent Study in Marketing 1-3 cr.

With the approval of the department, students will select one or more topics of critical importance in the field and will meet with faculty for independent reading, analysis, and evaluation. Prerequisite: Approval of department chairperson and Eberly College of Business

and Information Technology graduate coordinator.

MKTG 795 Thesis 4-6 cr.

For students writing the thesis, MKTG 795 should be scheduled for the semester in which they plan to complete their work. The thesis is a committee thesis (4-6 cr.) for which the student's advisor, two additional faculty members, the Eberly College of Business and Information Technology graduate coordinator, and/or the representative of the dean of the Eberly College of Business and Information Technology may constitute the committee.

MKTG/ISDS 811 Theory Building and Research Methods 3 cr.

Constitutes the first research methods based training in applied business research which exposes students to the scientific research process. Procedures of theory development, qualitative and quantitative research designs and methodologies, psychometric modeling and empirical measurement techniques, and certain suited statistical analyses will be reviewed in terms of operationalization and application in business research. Prerequisite: Student in the PhD business program.

MKTG 850 Marketing Theory 3 cr.

Provides an in-depth review of theories, frameworks and models from the marketing domain in business. Critically examines theories from both the consumer behavior and the business-to-business areas with a view to generating new knowledge. Examines behavioral and analytical frameworks in marketing. Prerequisite: Student in the PhD business program.

*Indicates dual-listed class

MRSC: Marine Science

Department of Biology
College of Natural Sciences and Mathematics

MRSC 500 Problems in Marine Science 3 cr.

Independent study for the advanced student in marine sciences. Topics are selected from areas offered by the Marine Consortium, and studies are directed by the instructor in that area. Prerequisite: Consent of instructor.

MRSC 581 Special Topics 1-3 cr.

MUHI: Music History

Department of Music
College of Fine Arts

MUHI 503 Music of the Baroque Era 3 cr.

A survey of music from about 1600 to 1750.

MUHI 504 Music of the Classical Era 3 cr.

A survey of music from about 1725 to about 1827.

MUHI 508 Music of the Sixteenth Century 3 cr.

A survey of music from about 1500 to 1600.

MUHI 520/* Music Since 1900 3cr

Examines selected trends in European and American art music since 1900. Prerequisite: MUHI 302.

MUHI 521 Topics in American Music 3 cr.

A course emphasizing reading, discussion, and writing on specialized topics in the history of American music. The topic varies from semester to semester, and will be announced prior to registration. The course may address such topics as Art Music in American Culture, Music and the Moving Image, Popular Music, Music and Drama, or Virtuoso Performers in America. Prerequisite: Graduate standing in music

MUHI 525/* Nineteenth-Century Music 3 cr.

Examines the musical and historical aspects of some representative works in four significant repertoires of nineteenth-century music: songs, characteristic works for piano, opera, and symphonies. Further examines how the works intersect with a number of social, cultural, aesthetic, political, and economic themes that pervade the century, such as the rise of the middle class, city cultures, the domestic music market, the invention of “the folk,” nationalism and exoticism, social and political revolutions, idealism and its successors, and the virtuoso.

MUHI 581/681 Special Topics 3 cr.

*Indicates dual-listed class

MUSC: Music

Department of Music
College of Fine Arts

MUSC 501 Advanced Choral Conducting 2 cr.

Material will include large choral works with and without accompaniment. Student will be expected to develop skills in reading score.

MUSC 502 Advanced Instrumental Conducting 2 cr.

An intensive study of large instrumental works. Skill development of each individual will be stressed.

MUSC 503 Practicum in String Pedagogy 1 cr.

Practical applications of string methods and string pedagogy techniques for instruction in hands-on teaching experiences in individual and ensemble settings. Emphasis will be on sequential instruction and reflective assessment of teaching techniques and goals. Prerequisites: FBI, Act 34, and Act 151 clearances, approval of instructor.

MUSC 510 Seminar in Music 3 cr.

Subject matter will change each semester. Students will make presentations and write an extensive research paper. Seminar may be repeated (with departmental approval), provided subject matter is not. An in-depth study can be made of narrowly defined areas, such as life and/or works of a specific composer or group of composers.

MUSC 511 Composition 3 cr.

Composition of music in various song forms through the rondos and the larger sonata allegro form. Careful analysis of similar forms of major composers. Instruction will be highly individualized and will depend considerably on personal interest of the student.

MUSC 512 Advanced Orchestration 3 cr.

Consideration to problems of scoring for full symphony orchestra, string orchestra, and chamber orchestra. Students will produce a full score and orchestra parts so that orchestra may be tested by actual playing by the University Symphony.

MUSC 515 Advanced Counterpoint 3 cr.

A study of the contrapuntal style of J.S. Bach and his contemporaries in the late Baroque era, which includes learning the essence of the “species” counterpoint of J.J. Fux and applying it to written exercises based on a given cantus firmus, as well as original compositions in the style of Bach. In addition to close study of Bach’s Two-part Inventions and of the fugues from the Well-Tempered Clavier, students will hear and discuss their exercises and compositions in class so that they may learn from each other.

MUSC 516 Analytical Techniques 3 cr.

Extends and refines the student's analysis skills in the area of music theory and their relation to pedagogy. Considerations include: functional harmony, post-tonal set theory and serial technique. Issues regarding musical architecture (form) will also be explored. Focus on analysis will also be linked to rehearsal instruction and pedagogy. Prerequisite: Graduate status in music.

MUSC 520/* Professional Practices 3 cr.

Explores skills needed to be successful, versatile, and employable in the 21st century. Includes curriculum vitae preparation, self-promotion and marketing, finding and creating opportunities, communication skills, grant-writing and resource acquisition, and developing a professional network. Taught in a seminar format with guest lectures.

MUSC 537 Techniques of the Marching Band 2 cr.

Theory and practical application of fundamentals of precision drill. This course also deals with building “half-time shows” and with materials and instrumentation of the marching band.

MUSC 540-550 Summer Music Workshop 1-3 cr.

Concentration in special interest areas. Content varies.

MUSC 551 Italian and English Diction 2 cr.

MUSC 553 French Diction 2 cr.

MUSC 554 German Diction 2 cr.

MUSC 575 Music Ensemble 1-3 cr.

Provides graduate students with the opportunity to participate in up to three ensembles. Each student must audition for ensemble placement at the beginning of each semester.

MUSC 581 Special Topics 1-3 cr.

MUSC 600 Bibliography of Music 3 cr.

Introduces graduate students to various types of music, music literature, and bibliographical tools which exist and which may be used in research in music. As a project, students will prepare an extensive annotated bibliography of a music subject within their special interest.

MUSC 618 Comprehensive Musicianship 3 cr.

Combines undergraduate concepts and skills in music theory, literature, and performance at an advanced level using an integrated approach. Prepares student to function in a variety of musical roles.

MUSC 619 Methods for Comprehensive Musicianship 3 cr.

Includes learning strategies, experiences, and activities appropriate for introducing comprehensive musicianship at elementary and secondary school levels.

MUSC 620 Foundations of Music Education 3 cr.

Study of historical, philosophical, and social foundation of music education, including educational thought and implications for school music programs.

MUSC 622 Composition II 3 cr.

MUSC 623 Composition III 3 cr.

MUSC 631 Administration and Advocacy in Music Education 2 cr.

Reviews current conventional and historical administrative organization of music education in public schools. Considerations include problems of scheduling, program funding, and program evaluation. Examines current issues in music education and public education in general, including standards-based curriculum development.

MUSC 632 Research Techniques in Music 3 cr.

Study of techniques appropriate for music and music education, including selection of research problem, collection of data, types of research, survey of current research studies in music, and use of library in connection with research problems. Elements of statistics are introduced as needed to interpret research reports. As part of requirements, student will prepare a written plan for research project or thesis.

MUSC 635 Psychology of Music Education 2 cr.

Explores psychology and learning theory for music teachers. The inductive strategies that

comprise the constructivist model and experiential learning will be emphasized in the teaching of this course. Prerequisites: Graduate status in music.

MUSC 636 Advanced Technology of Music Education 2 cr.

Examination and application of current communications media and their role in music education. Advances proficiency in the use of software applications useful in music education for both teaching and learning and develops the ability to choose and/or adapt applications for use in the K-12 music classroom.

MUSC 640 Formative Assessment and Action Research in Music Education 2 cr.

Provides a practicum for formative assessments in music teacher practice in K-12 settings that are based in action research. Action plans to address particular pedagogical issues will be identified by individual students from their school settings. Formative assessments for improvement will be developed by faculty instructors and course-based learning community through analysis of observational data, such as on-site visits to school sites and/or video observation of teaching, lesson plans, or other observable teaching materials and praxis. Students must have an in-service practice (school, private studio, church setting, community ensemble, or the like) for action research projects. Prerequisites: Graduate status in music education, In-service practice in music education.

MUSC 681 Special Topics 1-4 cr.

MUSC 698 Internship 3 cr.

MUSC 699 Independent Study in Music 1-6 cr.

APMU 740 Graduate Music Recital 4 cr.

This is the culminating activity for students in the MA Music Performance Track. Students prepare a 60 minute solo recital of selected works to be determined by close work and study with their major professor. Prerequisite: APMU 561 or higher.

MUSC 795 Thesis 4 cr.

NURS: Nursing

Department of Nursing and Allied Health Professions
College of Health and Human Services

NURS/HSAD 555 Healthcare Informatics 3 cr.

This course focuses on aspects of acquiring, storing, and retrieving, and effectively utilizing health information in a way that supports decision making, knowledge, and outcomes. The course combines concepts, theory, and practice from the cognitive, computer, and information sciences.

NURS 581 Special Topics 3 cr.

Topical courses offered on an experimental basis.

NURS 610/* Health Promotion and Social Issues 3 cr.

Introduces students to current social issues, models, and evidence based research in health promotion, disease prevention and population health relevant to individuals and communities. Explores individual and population health promotion assessment, health behavior interventions, and disease prevention in diverse populations to improve patient and population health outcomes. Develops and implements an intervention and prevention plan which addresses individual and population health problems. Critiques research and evidence-based practice relevant to population health.

NURS 614/* Health Policy and Patient Advocacy 3 cr.

Focuses on the legislative, regulatory, political and advocacy issues including safeguarding autonomy, and promoting social justice process that impacts the health care delivery services in the United States. Examines the impact of policy and politics on health care, social equity, accessibility, cost, and affordability. Examines their role in health policy development at the federal, state, and local level. Analyzes selected policies for their effect on social issues, health care finance and delivery. Explores the influence of global health. Prerequisite: Junior Standing

NURS 619 Leadership in Health Care 3 cr.

This course will provide an overview of the characteristics and qualities needed for leadership in health care. Leadership theories and how they apply to health care will be discussed. Career development and aspects of the leadership role will be explored. Strategies for managing leadership challenges will be reviewed.

NURS 620 Theoretical Foundation for Nursing 3 cr.

Focuses on the critique, evaluation, and utilization of nursing and related theories for nursing practice. Students will be expected to analyze the appropriateness of theories for utilization in practice and research.

NURS 622 The Practice of Nursing Research I 3 cr.

Examines the conceptual, theoretical, and ethical contexts of nursing research. Concepts of statistical theory, measurement strategies, and data collection issues are presented, as they are applicable to nursing research.

NURS 623 Translating Research into Nursing Practice 3 cr.

The course emphasizes how research can contribute to the improvement of nursing practice. Students will identify nursing problems and questions that can be answered with research evidence. Rigorous appraisal of the evidence will allow students to determine the quality and relevance for integrating findings into practice and assessing implementation potential. Students will develop evidence-based practice protocols that translate research findings into nursing practice.

NURS 628 Advanced Professional Role 3 cr.

Analysis of the current and changing roles of advanced nursing in the current sociopolitical environment. Provides opportunities for reflection upon personal career development. Emphasis

is placed on the development of a variety of professional communication and presentation skills needed for the advanced nursing role. Students prepare an article appropriate for a professional journal and deliver a professional presentation. Skills in resume/vitae writing and grant writing are also included.

Opportunities are provided for development of skills that enhance the advanced nurse's ability to work collaboratively with others.

NURS 629 Healthcare Quality and Safety 3 cr.

This course is designed to teach students to critically evaluate safety and quality in the health care arena. Students will be introduced to the agencies and resources involved with patient safety and health care quality monitoring. Knowledge of the impact of patient safety initiatives, resources, and regulations on practice and the use of benchmarks and quality improvement models to improve practice will be presented. Students will learn to evaluate current practice, identify a safety or quality issue, design, and implement a plan of correction.

NURS 681 Special Topics 3 cr.

Topical courses offered on an experimental basis.

NURS 699 Independent Study 3 cr.

Under the guidance of a faculty member with necessary expertise, the student may study in depth some aspect of nursing or health care not included in required courses.

NURS 711 Simulation in Nursing Education 3 cr.

This course provides a foundation for the nurse educator to use simulation in nursing education. Students will explore the use of a theoretical framework for developing simulations and focus on designing, implementing, and evaluating simulation scenarios. Students will incorporate reflection/debriefing in simulation teaching learning experiences.

NURS 721 Advanced Clinical Practice for the Nurse Educator 3 cr.

This course will prepare the nurse educator in advanced pharmacology, pathophysiology, and physical assessment. Students will have the opportunity to demonstrate safe quality care based on evidenced based practice. Use of case studies and clinical activities will provide the student with opportunities to apply course content using an inter-professional approach. Students will develop a teaching module as a final project of the course. Prerequisites: NURS 723, NURS 725.

NURS 722 Measurement and Evaluation in Nursing Education 3 cr.

Presents various methods of evaluating program, classroom, and clinical performance in nursing. Students are assisted in developing classroom and clinical examinations for nursing. Principles of test construction and methods for developing various test items as a means of measuring critical thinking in nursing students are also addressed. Social, ethical, and legal issues of evaluation are included.

NURS 723 Program Development in Nursing Education 3 cr.

Focuses on the process of program development for nursing education in a variety of levels and settings based upon program assessment strategies. The major issues of program development, revision, and evaluation that challenge nurse educators are also addressed. The role of

accreditation agencies in program development and evaluation is also studied. Students are given opportunities to plan a curricular program that addresses future education needs of the nursing profession.

NURS 725 Teaching Strategies for Nursing Curricula 3 cr.

Explores the various teaching strategies used in nursing classroom and clinical settings for students with diverse needs. Learning theory will be integrated into the role of the nursing educator. Social, ethical, and legal issues related to teaching in the classroom and clinical setting will be analyzed.

NURS 729 Nursing Administration 3 cr.

Concepts and theories related to the management process are used to examine the roles and responsibilities of the nurse manager in health care organizations. The influences of environment and technology as well as issues and trends that impact on nursing management are explored.

NURS/HSAD 730 Financial Management in Health Care 3 cr.

Provides an opportunity for students to examine the financial decision-making process used by health care administrators. Emphasis will be on understanding health care payment systems, assessing and developing financial plans, and making financial decisions in a variety of health care settings.

NURS 731 Nursing Administration Capstone 3 cr.

The nurse administrator's role and responsibility in health care organization are examined in the class and the clinical setting. Current issues and problems dealing with marketing, recruitment, retention, and quality of care are addressed. Influence of professional and technological factors on the functions of health care and the role of the nurse administrator are explored. This course provides the student with the opportunity to synthesize advanced practical knowledge in nursing administration and develop an administrative project under the guidance of an administrator mentor at an appropriate clinical site.

NURS 732 Organizational Behavior in Health Care Administration 3 cr.

Provides the student with knowledge of advanced concepts and theories in health care organizations. Students will explore the role and responsibilities of the health care administrators dealing with issues and problems related to human resource management, staff development, strategic planning, organizational culture and climate, marketing strategies and cultural diversity in health care settings.

NURS 734 Concepts of Community Health Nursing 3 cr.

Provides an in-depth study of the requisite concepts and skills for community health nursing. Building on the understanding of individuals as clients, the students will now gain perspective on aggregates and communities as recipients of nursing care and the delivery sites of community health care. Included in the content will be epidemiological principles that are the foundation of clinical decision making in community health nursing practice. The relevance of nursing research to community health nursing practice will also be discussed. The course will also provide an opportunity to advance health and social policies as they relate to community health care. Prerequisites: NURS 511, NURS 612, and NURS 620. Co-requisites: NURS 610, NURS

613.

NURS 735 Aggregates in the Community 3 cr.

Provides the family and community theory to support nursing care for families, aggregates, and select communities through primary, secondary, and tertiary health prevention.

Clinical/laboratory component provides opportunity to utilize advanced nursing skills when providing care for families, groups, and communities. Prerequisite: NURS 734. Co-requisite: NURS 622.

NURS 736 Leadership in Community Health Nursing 3 cr.

Provides an opportunity for students to assume leadership roles in the assessment, planning, development, coordination, and evaluation of health care programs for individuals, families, groups, and communities. Clinical/laboratory component provides students with the opportunity to plan and coordinate community health programs. Students will formulate research questions regarding the care of families, groups, and the community. Prerequisite: NURS 735. Co-requisite: NURS 614.

NURS 743 Nursing Education Capstone 3 cr.

Provides opportunities for students to synthesize and integrate educational theories, research, and curriculum planning and evaluation into the role of nurse educator. Students work with a nurse educator in an area of interest (hospital, staff development, schools of nursing). As the capstone course of the nursing education track, students are expected to develop an appropriate project in a chosen setting. Responsibilities of the nurse educator as a teacher, mentor, role-model, advisor, and scholar will be addressed. This course consists of a weekly one-hour seminar and a weekly practicum of six hours.

NURS 744 Advanced Nursing Roles Capstone 3 cr.

Examines issues that impact nurses in advanced administrator or educator roles. Through a mentored immersion experience, students will demonstrate integration of advanced nursing knowledge in the healthcare and/or education setting. This course provides students an opportunity to develop a culminating advanced role project that uses research, critical thinking, and leadership skills to address an identified need in the healthcare and/or education setting. Prerequisites: NURS 623, 722, 723, and 725 OR NURS 623, 729, and 730 or by permission.

NURS 795 Thesis 3-6 cr.

Thesis should be scheduled for the semester in which the student plans to complete degree requirements. A committee of faculty members will provide thesis supervision.

NURS 801 Doctoral Colloquium in Nursing 1-3 cr.

Provides an academic setting for graduate students to present research and theoretical papers for group discussion. Special Topics in nursing will be selected each semester. Prerequisite: Permission.

NURS 802 Leadership in Nursing: A Case Study Approach 3 cr.

Focus on analysis of leadership theory. Examines cases of exemplary leaders and organizations

in nursing to gain insight into both the psychological and sociological aspects of successful leadership in a changing field. The student will apply case study methodology to the analysis of leaders and leadership styles.

NURS 820 Seminar in Nursing Theory 3 cr.

Provides an overview of major nurse scholars' contributions to theoretical development in nursing. The student will examine scholarly works regarding the history of nursing theory, philosophical underpinnings of nursing theory, and the relationship of nursing theory, practice, and research. The student will explore concept and statement development and its relationship to overall theory development in nursing and the linkage with nursing research.

NURS 860 Faculty Development in Nursing Education 3 cr.

Provides students with an opportunity to explore the complexity of the role and issues facing nursing faculty in higher education outside the classroom setting. The student will appraise the skills necessary to succeed in the nursing education environment and develop a plan for professional growth and scholarly achievement. Research related to nursing faculty development and success in academia will be analyzed.

NURS 861 Pedagogical Practices in Nursing Education 3 cr.

Application of educational theories to the nurse-educator role in higher education will be explored. A critical review of the role of the teacher in the clinical and classroom setting, teaching strategies, and student-centered learning outcomes will be conducted. The student will apply the art of reflection to the practice of teaching.

NURS 862 Curriculum Evaluation in Nursing 3 cr.

Examines various curriculum designs in nursing. The student will critique the qualities of effective nursing curricula at the undergraduate and graduate levels. The student will analyze current accreditation standards in nursing education and their relationship to curriculum evaluation. Methods for conducting ongoing curriculum revision based on a quality outcomes assessment plan will be explored.

NURS 863 Evaluation in Nursing Education 3 cr.

Application of measurement theory to nursing education. Presents various strategies to assess and evaluate classroom and clinical performance in nursing education. Evidence-based assessment and evaluation practices, including test construction, are proposed and critiqued. Social, ethical, and legal issues related to evaluation are analyzed.

NURS 864 Technology in Nursing Education 3 cr.

Provides a foundation for educators to incorporate technology into nursing programs. Strategies for the use of technology in nursing education will be explored. The student will apply knowledge of distance education technology to the practice of teaching in nursing and evaluate the effectiveness of distance education teaching strategies.

NURS 865 Student Issues in Nursing Education 3 cr.

Provides students with an opportunity to critically review and analyze the social, economic, cultural, political, and educational issues impacting nursing students. After a comprehensive

analysis of issues, policies, and practices, the student will develop a best practice model for nursing student success.

NURS 951 Quantitative Nursing Research 3 cr.

Provides students with advanced knowledge and skill in quantitative research methodology and design related to nursing education. The student will analyze, evaluate, and critique relevant study designs and methods used in experimental, quasi-experimental, and nonexperimental research. Evaluative issues regarding power analysis, sampling, and data collection techniques will be addressed. Strategies for enhancing the scientific and methodological rigor will be explored. Prerequisite: GSR 517.

NURS 952 Qualitative Nursing Research 3 cr.

Qualitative research methods used in nursing will be critiqued. The use of case study, phenomenology, grounded theory, hermeneutics, historical research, and ethnography will be appraised for their use in nursing education research. Techniques for conducting qualitative research and data analysis will be practiced. Issues related to rigor and confirmability of the data will be evaluated.

NURS 953 Research Seminar I 3 cr.

Provides students with the opportunity to participate in nursing education research tool development for quantitative or qualitative research. The student will participate in tool development, testing, and evaluation. The course will also explore sampling issues and development of a recruitment plan for use in nursing education research. Opportunities for peer critique will be an integral component of this course. Prerequisites: NURS 951 and 952.

NURS 954 Research Seminar II 3 cr.

Builds upon prior knowledge of qualitative and quantitative research methods and provides opportunities to participate in research activities in collaboration with mentors. The course focuses on various approaches to data analysis, development of Institutional Review Board (IRB) proposals, and grant writing. Opportunities for peer critique will be an integral component of this course. Prerequisite: NURS 951 and NURS 952.

NURS 993 Nursing Professoriate Practicum 3 cr.

Designed to provide the student with an opportunity to select and operationalize aspects of the nurse-educator role. The student will apply an understanding of the nursing faculty role to teaching and learning and develop one or more aspects of a plan for professional development. Prerequisites: NURS 860, 861, 862, 863, and 864.

NURS 994 Dissertation Seminar 3 cr.

Provides the student with an opportunity to develop a dissertation proposal focusing on nursing education. Students will have opportunities for peer review and critique of their work. The course will culminate in an oral presentation of the proposal that will prepare students for dissertation defense.

Prerequisites: NURS 820 or by permission for DNP students. Pre or Co-requisite: NURS 954

NURS 995 Dissertation 1-9 cr.

A culminating research project requiring mastery of an area of interest relevant to nursing education. Requires a comprehensive literature review and the collection and analysis of data. A successful oral defense of the finished project is required. The student must complete a minimum of nine credits of dissertation to satisfy graduation requirements. Prerequisite: By permission

PHIL: Philosophy

Department of Philosophy
College of Humanities and Social Sciences

PHIL 560 Philosophy of Language 3 cr.

An investigation of issues in the philosophy of language and related issues in linguistics (including anthropological linguistics, sociolinguistics, and psycholinguistics). Sample topics include the influence of language on perception, rationalistic/empiricist perspectives on language acquisition, language and political control, reference, meaning, and truth.

PHIL 581 Special Topics 3 cr.

PHIL 599 Independent Study 1-6 cr.

PHYS: Physics

Department of Physics
College of Natural Sciences and Mathematics

PHYS 501 Theoretical Physics 3 cr.

Explores the applied mathematics necessary to solve ordinary and partial differential equations in closed and series forms for boundary value problems in intermediate and advanced physics. Coordinate transformations, tensor analysis, special functions and series involving complex variables and integral transforms are also considered.

PHYS 511 Secondary School Physics Laboratory Practice 1-3 cr.

Designed not only to give the student training in use of PSSC and Harvard Project Physics laboratory materials but also to increase his/her ability to make the lab a more effective teaching tool.

PHYS 520 Advanced Laboratory Practice 3 cr.

Experimental physics. Experiments are made available to supplement student's previous training. Data interpretation and experimental techniques are emphasized. Topics can include but are not limited to various methods of measurement and analysis of radioactivity, interferometry, spectrometry, microwave optics, NMR, mechanical vibrating systems, and thermal properties.

PHYS 531 Modern Physics 3 cr.

An introduction to particle and wave properties of matter, atomic structure, quantum mechanics, and the quantum mechanical model of the atom.

PHYS 533 Thermal and Statistical Physics 3 cr.

A unified approach to the study of thermodynamics through use of statistical methods.

Temperature, entropy, chemical potential, and free energy are introduced and applied to a monatomic ideal gas and systems of fermions and bosons in quantum and classical regions.

PHYS 535 Electronics 4 cr.

DC and AC circuits, diode circuits, and transistor circuits, such as the common emitter and emitter follower amplifiers, are extensively covered. Negative feedback, operational amplifiers, oscillators, and digital logic are introduced. These topics are discussed in lecture and investigated by the student in the lab.

PHYS 536 Advanced Electronics 3 cr.

Field effect transistors, noise problems, grounding and shielding, applications of digital logic, digital-to-analog-to-digital conversion techniques, transmission lines, and microprocessor applications. Two one-hour lectures and one three-hour lab. Prerequisite: PHYS 535.

PHYS 541 Analytical Mechanics I 2 cr.

Kinematics, particle dynamics, gravitation, free and forced harmonic motion. Treatment of these topics utilizes vector calculus and differential and integral calculus.

PHYS 545 Optics 3 cr.

Main concepts of modern optics utilized in areas of geometrical, wave, and quantum optics. Includes presentation of illustrative examples in areas of laser technology, complex optical systems, interferometry, and spectroscopy.

PHYS 551 Electricity and Magnetism I 2 cr.

Coulomb's law, electrostatic potential, Gauss's law, and dielectrics will be presented using vector calculus in a modern field formalism. Prerequisite: PHYS 510.

PHYS 555 Computer Interfacing 3 cr.

Designed to teach the fundamentals of interfacing the personal computer with its physical surroundings. Students will learn to collect data and to control experiments. In addition, they will learn to use digital-to-analog and analog-to-digital conversion techniques, as well as how to use virtual instruments. Students will also learn to use LabVIEW (or a similar software package) to design icon-based interfacing tools and to investigate the conditioning of analog and digital information. The students will complete a special project determined by the instructor and the student. Prerequisite: Experience in writing computer programs in the C language.

PHYS 561 Quantum Mechanics I 3 cr.

Introduction to theory of linear vector spaces, linear operators, eigenvalues, eigenvectors, and eigenfunction and their application to the harmonic oscillator, hydrogen atom, electron in a magnetic field, scattering, and perturbations. Prerequisites: PHYS 541 and PHYS 531 or equivalent.

PHYS 565 Introduction to Nuclear Physics 3 cr.

Survey of introductory nuclear physics including nuclear size, mass, types of decay, models, forces, elementary particles, reaction theory.

PHYS 575/* Physics of Semiconductor Devices I 3 cr.

Develops the basic foundation for a student of the theory of semiconductors. Elementary quantum concepts, the band theory of solids, electrical properties of solids, effective mass theory, and principles of semiconductor devices are discussed. Prerequisites: PHYS 533, PHYS 535, PHYS 545, or permission of instructor.

PHYS 590/* Solid State Physics 3 cr.

Reciprocal lattice, crystal structure, the quantization of fields to produce quasiparticles such as phonons, magnons, and excitons. Fermi gas of electrons, energy bands, semiconductor crystals, and photoconductivity. Prerequisites: PHYS 531 and 542.

PHYS 599 Special Studies 1-6 cr.

Special Topics course(s) may be offered at the discretion of the department to fulfill a special necessity.

PHYS 600 Methods of Research in Physics 2 cr.

Offers the student practical training in special methods and materials of research in physics. Emphasis on types of research and use of physics and physics-related journals and library facilities. Prerequisite: Permission of department.

PHYS 601 Theoretical Physics I 3 cr.

Serves as a preparation in mathematical physics for graduate student. Included will be vector analysis, curvilinear coordinate systems, infinite series, complex variables and the calculus of residues, and ordinary and partial differential equations. Prerequisite: Permission of department.

PHYS 602 Theoretical Physics II 3 cr.

A continuation of PHYS 601, covering Tensor analysis, matrices, group theory, Sturm-Liouville theory, special functions, Fourier series, integral transforms, Green's functions, and integral equations. Prerequisite: PHYS 601.

PHYS 611 Computational Physics 3 cr.

Introduction to developments in computational physics, emphasizing physical concepts and applications rather than mathematical proofs, derivations, and code developments. In particular, shows how computers can be used to learn about physics concepts and how they can be used as tools in solving physics problems. A familiarity with the concept of programming is assumed. Prerequisite: PHYS 473/561, or equivalent, or permission of the instructor.

PHYS 634 Statistical Mechanics 3 cr.

A quantum approach to statistical mechanics. Fermi, Bose, ideal gas, and imperfect gas systems are investigated. Special Topics in kinetic theory of gases, transport phenomena, magnetic systems, and liquid helium. Co-requisite: PHYS 561 or its equivalent.

PHYS 641 Advanced Mechanics I 3 cr.

Includes the following topics: Lagrange's equations, Hamilton's Principle. Two-body central force, Euler's Theorem, small oscillations, Hamilton's equations, canonical transformations. Prerequisite: PHYS 542 or its equivalent.

PHYS 651 Advanced Electromagnetic Theory I 3 cr.

Solution of boundary value problems using Green's functions and separation of variables techniques. Cartesian and spherical coordinate systems, multi-pole expansions, macroscopic electrostatics and magnetostatics, Maxwell's equations, and plane electromagnetic waves. Prerequisite: PHYS 552 or equivalent.

PHYS 652 Advanced Electromagnetic Theory II 3 cr.

Solution of electrostatic problems using cylindrical coordinates. Green's function for time-dependent wave equation, conservation laws, wave guides and resonant cavities, Special Theory of Relativity, simple radiating systems, and diffraction. Prerequisite: PHYS 651.

PHYS 657 Solid State Theory 3 cr.

Quantum approach to solid state. Topics include second quantization of fermion and boson systems, electron theory of metals, electron-phonon interactions, and superconductivity. Selected subjects in thermal transport, magnetic phenomena. Corequisite: PHYS 561 or its equivalent.

PHYS 658 Physics and Applications of Industrial Materials 3 cr.

Introduces the essential physics and current industrial applications of technologically important materials by way of both lecture and lab components. Materials of interest will span semiconductors, ceramics, polymers, and composites that find application in microelectronics, magnetic recording, flat panel displays, medical application, and micro machines.

PHYS 661 Quantum Mechanics II 3 cr.

Fundamental concepts of quantum mechanics, theory of representations, and linear vector spaces. Approximation methods for stationary problems with applications to central potentials and for time-dependent problems with application to scattering and transition theory.

PHYS 662 Quantum Mechanics III 3 cr.

Classical and quantum fields; interactions between Fermi and Bose fields; relativistic quantum mechanics; and Dirac theory. Introduction to propagators and Feynman diagrams with application to quantum electrodynamics and many-particle systems.

PHYS 690 Research Problems in Physics 1-6 cr.

Introduction to advanced research problems through individual assignment. Prerequisite: Permission of department.

PHYS 699 Independent Study 1-6 cr.

Individualized, in-depth study of an area of physics in the student's interest. Work is supervised by a physics faculty member but does not necessarily involve regular lecture or laboratory hours. The topic must be approved by the supervising faculty member and by the administration prior to the semester in which the course is to be taken.

PHYS 795 Thesis 1-6 cr.**PHYS 799 Internship Experience**

Practical learning experience for students of applying science and business skills in an industrial workplace. Students must initiate and secure internship to participate in a 3-6 month supervised professional work-experience with identified industrial sponsors to advance their individual career objectives. The PSM program coordinator provides guidance to students during their exploration of industrial sites and project options. The internship is a rigorous but flexible training experience with respect to its focus and timeline—it can be paid or unpaid and generally conducted in a non-academic setting. Prerequisites: Completion of 12 IUP graduate credits with a minimum of a 3.0 grade point average.

*Indicates dual-listed class

PLSC: Political Science

Department of Political Science

College of Humanities and Social Sciences

PLSC 500 Research Methods in Political Science 3 cr.

Provides students with a working knowledge of the statistical techniques commonly applied to the study of political phenomena and an understanding of the basic assumptions, limitations, and theoretical foundations of these various techniques. Focuses on measurement principles, research design and data collection, univariate distributions, sampling, and bivariate analysis.

PLSC 504 Women and Politics 3 cr.

Focuses on the role of women in political life, and policies that especially affect women in both developing and developed countries.

PLSC 522 International Law and Organizations 3 cr.

A survey of the main concepts and history of international law and an analysis of the major international organizations such as United Nations, the European Union, and the Organization of American States. Knowledge of how such organizations operate is essential to understanding international relations.

PLSC 550 The Presidency 3 cr.

Examines the office of President with attention to Constitutional foundations, evolution, structure, powers, and functions. Comparisons are made between Presidential and parliamentary systems and between offices of President and governor.

PLSC 551 The Legislative Process 3 cr.

Legislative process in the U.S. with emphasis on Congress. Focus on organization and function of legislative bodies, with American legislative institutions compared with those of other nations.

PLSC 554 Metropolitan Problems 3 cr.

Analyzes multiplicity of problems facing our metropolitan areas, such as urban renewal, shrinking tax base, federal aid to cities, subsidized mass transit, municipal authorities, and political consolidation.

PLSC 555 Intergovernmental Relations 3 cr.

Explores the characteristics of federal system of government with emphasis on theories, origins, institutions, and problems in intergovernmental relations in the U.S.; federal systems in other nations; and trends.

PLSC 558 Judicial Process 3 cr.

Explores nature and limits of judicial power, courts as policymaking bodies, selection of judges, decision process, external forces impinging on the courts, and role of Supreme Court in its relationship with Congress, the Presidency, and federalism.

PLSC 559 Constitutional Law and Civil Liberties 3 cr.

Study of civil liberties and civil rights issues through leading Supreme Court decisions. Topics include First Amendment rights, procedural due process, and the Bill of Rights and equal protection problems.

PLSC 560 Classical Political Thought 3 cr.

Evolution of Western political tradition of Constitutionalism from Plato and Aristotle to Locke and Montesquieu; religious and rational foundations; medieval theories of authority and representation; early modern theories of state and sovereignty. Concepts of law, natural rights, liberty, equality, and justice are treated in detail.

PLSC 561 Modern Political Thought 3 cr.

Development of Western political thought since the mid-sixteenth century; classic liberalism; conservative thought; modern irrational ideologies such as fascism and national socialism; socialist thought; contemporary collectivist liberalism.

PLSC 562 American Political Thought 3 cr.

Develops an understanding of American political thinkers from the Puritans through the current Afro-American writers. Political phenomena are examined relating to past writings, and inferences are made for future political behavior.

PLSC 565 Intelligence Process and Policy 3 cr.

Demystifies intelligence and focuses on the critical thinking and intellectual skills the process of intelligence requires to provide government, private, and non-profit decision makers with useful information upon which to base sound decisions: collecting, analyzing, and providing data to those decision makers. Students will also examine the impact of the structure and role of the intelligence community in formulating U.S. national security policy.

PLSC 570 The Practice of Public Administration 3 cr.

Examines the environment and structure of public sector organizations, organizational theory, organizational culture, intergovernmental and intra-organizational relations, leadership and ethics, the planning, management and evaluation of programs and services, the administration of human resources, budgeting and finance, and management information. Emphasizes the integration of theory and practice through case studies and projects.

PLSC 571 Issues in Public Administration 3 cr.

An intensive study of the role of federal agencies and their administrators in determining and

developing public policies. Public administration in practice is emphasized by using case studies, third-person teaching, problem-based exercises, and debates.

PLSC 581 Special Topics 1-3 cr.

In-depth study of a specific problem or topic not regularly treated in courses. May be repeated.

PLSC 583 Political Studies: Asia 3 cr.

Comparative study of government and politics of Asia.

PLSC 584 Political Studies: Middle East 3 cr.

Comparative study of government and politics of the Middle East.

PLSC 587 Political Studies: Latin America 3 cr.

Comparative study of government and politics of Latin America.

PLSC 588 Dimensions of National Security 3 cr.

Deals with national security problems, including decision-making and budgeting levels of strategy, the utility of force, and the impact of the military on American society.

PLSC 589 International Development Strategies 3 cr.

Deals with the political characteristics of emerging nations; the impact of economic and social change upon political structure; evolving patterns of political development; and techniques of nation-building.

PLSC 631 Human Resource Management in Public Sector 3 cr.

In-depth study of human resources management systems with special focus on public sector organizations. Emphasizes the development of an understanding of traditional functional systems as well as skills necessary to manage such systems successfully.

PLSC 666 Public Policy Analysis 3 cr.

Examines public policy using analytical tools and policy models. Considered within this framework are values and resources, the cultural-political environment, the policymaking process, and evaluation methods and their application to major policy areas.

PLSC 668 Public Sector Financial Administration 3 cr.

Concerned with the administration of fiscal and monetary processes of government on all three levels. Included are topics related to revenue and expenditure, how the former are calculated and provided for, and how the latter are prioritized and allocated via the budgetary process; control systems which are concerned with recordkeeping; and the monitoring of the flow of revenues.

PLSC 670 Foreign Policy Studies 3 cr.

Considers selected problems in international affairs. Emphasis on those problems and conflicts which have evolved in the postwar era, particularly as they relate to position of the United States in world affairs. Specific problems are approached both in terms of countries involved and the existing balance in world economic, ideological, and power structure.

PLSC 671 Seminar in Public Administration 3 cr.

Intensive study of role of agencies and their administrators in determining and developing public policy. Public administration in practice is emphasized by utilizing case studies.

PLSC 674 Analytical Techniques 3 cr.

Exposes the student to approaches, methods, tools, focus, and boundary lines of political science study. As a research methods course in graduate political science, it should be scheduled early in the program.

PLSC 675 International Political Economy 3 cr.

Examines the interaction between governments and markets on economic issues. This examination will occur comparatively both within countries and between nations. Acquaints students with the theoretical issues, trends, and findings of some of the major studies on and subfields within international political economy. Assumes a basic familiarity with foreign policy, comparative politics, and economics. Focus is on both international political economy as a subject and a field of study.

PLSC 678 The Ethical Dimensions of Leadership 3 cr.

Focuses on the ethical dimensions of leadership and strategies to integrate ethical considerations into organizational, administrative, decision-making, and policy processes. To facilitate discussion and the application of ethics to professional practice, a series of speakers examines the relationship between ethics and leadership within varying contexts. Case studies, videos, and exercises link theory and practice. Students are expected to complete all assigned readings prior to each class to facilitate their active participation in all discussions. A literature review project provides students with the opportunity to pursue individualized interests related to leadership and ethics.

PLSC 698 Political Science Internship 3-6 cr.

Practical experience in government and politics. Students are individually assigned to a cooperating local or state government agency, political party, or interest group or to a federal or international agency when arrangements can be made. Students report periodically to professor in charge and undertake reading assignments and write such reports and papers as the professor may require. Prerequisite: Must have approval of instructor and department chairperson.

PLSC 699 Independent Study 1-3 cr.

Readings and written assignments on a specific topic determined by student and instructor in charge. May be repeated.

PLSC 744/CRIM 744

An in-depth study of the legal and international issues that the U.S. faces in response to combating international terrorism. Emphasis is placed on identifying causes of terrorism and the most plausible threats; terrorist networks, their commonalities and differences, and the difficulty in countering; and determining appropriate responses, to include political and legal implications, threat analysis, physical security, and target hardening. Prerequisites: Enrolled in CRIM or PLSC graduate program, or permission of instructor.

PLSC 795 Thesis 3 cr.

PSYC: Psychology

Department of Psychology
College of Natural Sciences and Mathematics

PSYC 554 Developmental Psychology 3 cr.

A comprehensive study of human growth and development from conception to death. Major research findings and developmental theories will be considered.

PSYC 578 Psychology of Death and Dying 3 cr.

Emphasizes the theories and research which delineate the psychological factors affecting the dying person as well as those people close to someone who is dying. Psychological, social, and cognitive factors affecting one's attitude toward death and approaches to coping with dying and death are studied. Prerequisite: Permission.

PSYC 581 Special Topics 3 cr.

Designed to examine Special Topics in depth. Students prepare presentations representing selected research areas. Prerequisite: Permission.

PSYC 795 Thesis 1-6 cr.

A supervised research project approved by a committee of faculty members. A thesis proposal must be approved by the end of the third full semester of graduate work, and the finished thesis must be defended within the following year. Students enroll for three semester hours for two semesters.

PSYC 801 Research Methods in Psychology I 3 cr.

The design, statistical analysis, and report of laboratory experiments will be studied. Prerequisite: Permission.

PSYC 802 Clinical Research Methods 3 cr.

Introduction to data analysis techniques and methodological problems commonly encountered in clinical research. Methods appropriate for single subjects as well as groups are explored. Prerequisite: PSYC 801 and PSYC 841.

PSYC 803 Evaluation Research 3 cr.

Introduction to the methodological issues involved in validly assessing the effectiveness of intervention programs relevant to psychology (e.g., human service programs), including a consideration of how the results of evaluation research can be used to improve such programs. Students will participate in either actual or simulated evaluation research projects. Prerequisite: Permission, PSYC 801 or equivalent.

PSYC 810 Historical Trends in Psychology 3 cr.

Comprehensive overview of historical antecedents of contemporary psychology. Prerequisite: Permission.

PSYC 811 Teaching of Psychology 1 cr.

Basic dimensions of the teaching process are discussed, including course planning and structure, developing and presenting lectures, using alternative pedagogical techniques, evaluating student performance, addressing issues of diversity in the classroom, etc. Skill-practice in these areas is emphasized. Prerequisite: Instructor permission.

PSYC 830 Methods of Intervention I 3 cr.

Methods of studying and improving competency in interpersonal skills as a necessary ingredient of most models of therapy, such as psychoanalysis, client-centered, and behavior modification. Emphasis is placed on theory, research, and personal competence in communication.

Prerequisite: Permission.

PSYC 831 Methods of Intervention II 3 cr.

Emphasis is placed upon the systematic study and application of social influence techniques to the modification of clinical problems. A broad spectrum of cognitive, physiological, and behavior change procedures are studied and evaluated with regard to their cost and effectiveness. A general problem-solving model for decision making, case evaluation, and accountability is advanced. Prerequisites: PSYC 830 and permission.

PSYC 832 Therapeutic Techniques Lab 2 cr.

Presents didactic and experiential training in tactics of achieving insight, emotional awareness, emotional escalation or reduction, cognitive-perceptual change, and behavior change for use in individual psychotherapy. Prerequisite: PSYC 830 or equivalent, simultaneous enrollment in PSYC 831, and instructor permission.

PSYC 833 Clinical Group Techniques 3 cr.

Provides instruction and experience in a variety of group techniques. Includes lectures, demonstrations, and participation in group exercises useful in the clinical psychology profession. Prerequisite: Permission.

PSYC 834 Family Therapy 3 cr.

Introduction to family and marital therapy. Both systems theory approaches and behavioral approaches will be considered. Process and outcome research will be reviewed. Prerequisite: Permission.

PSYC 835 Advanced Psychopathology 3 cr.

An in-depth study of the description, causes, and treatment of behaviors considered abnormal by our society. Integrates and extends previous materials in abnormal behavior, assessment, therapy, research methodology, and professional practice. Prerequisites: Previous undergraduate course in Abnormal Psychology and permission.

PSYC 836 Personality Theory and Systems of Psychotherapy 3 cr.

Several major personality theories are reviewed in a comparative manner with emphasis placed upon issues such as the assumptions about the basic nature of man, personality development,

normal and pathological development, and philosophy of treatment for each theory. Prerequisite: Permission.

PSYC 841 Psychological Assessment I 3 cr.

Beginning course in theoretical issues and development of skills in assessing psychological functioning and in report writing. Beginning emphasis on intellectual assessment, followed by the development of an increasing variety of assessment tools. Prerequisite: Permission.

PSYC 842 Psychological Assessment II 3 cr.

Continuation of PSYC 841 with increased emphasis on development of skills in areas of objective and projective tests, behavioral observations, self-report measures, and other assessment techniques.

Prerequisites: PSYC 841 and permission.

PSYC 852 Models of Learning 3 cr.

Several learning paradigms are described. Emphasis is on the theoretical assumptions underlying the models and their strengths and weaknesses. Applications of the models to changing maladaptive behavior are discussed. Prerequisite: Permission.

PSYC 853 Issues in Developmental Psychology 3 cr.

The processes and structures of life span development are studied. Cognitive, emotional, social, and physical development will be explored, emphasizing the interactive effects of the person's environment, developmental level, and psychological state. Prerequisite: Permission.

PSYC 855 Racial, Cultural, and Gender Issues in Psychology 3 cr.

The operation of cultural, racial, and gender issues in the theory, research, and practice of psychology is examined. The ways in which a psychologist's own culture, race, and gender may influence professional practice are explored.

PSYC 856 Drugs and Behavior 3 cr.

Introduction to various aspects of drugs and behavior. Includes exploration of factors influencing drug effects, problems in drug research, therapeutic use of drugs, legal use and abuse of drugs, and social aspects of drug experience. Prerequisite: Permission.

PSYC 857 Clinical Neuropsychology 3 cr.

The study of the relationship between human brain dysfunction and abnormal behavior. Includes assessment techniques used to diagnose brain damage. Prerequisite: Permission.

PSYC 858 Advanced Social Psychology 3 cr.

Advanced survey of the relationship between the social environment and human behavior. Topics include social influence, attitude formation and change, attribution and social cognition, interpersonal attraction, aggression, altruism, small group interaction, and environmental psychology. Prerequisite: Permission.

PSYC 860 Child Clinical Psychology 3 cr.

Approaches unique to child psychopathology, assessment, and intervention are explored. Ages from birth to adolescence are covered. Prerequisite: Permission.

PSYC 861 Psychology and Medicine I 3 cr.

The area of health psychology and its role in behavioral medicine are introduced. Psychophysiology, which provides much of the foundation for health psychology, is studied through readings, lectures, and hands-on experiences with psychophysiological recording equipment. Prerequisite: Permission.

PSYC 881 Special Topics 1-6 cr.

Designed to examine a Special Topics in depth. Students prepare presentations representing selected research areas. Prerequisite: Permission.

PSYC 920 Professional Issues 3 cr.

An examination of professional problems in the field of clinical psychology. Includes topics such as training philosophies, licensure, legal issues such as involuntary commitment and expert witness, ethical standards, and professional organizations. Prerequisite: Permission.

PSYC 943 Psychological Assessment III 3 cr.

Continuation of PSYC 842 with emphasis on nontraditional assessment methods such as family observations, mental status ratings, and social skills assessment. Topics in clinical judgment and inference and a combination of assessment data and report writing are covered. Prerequisite: PSYC 842 or permission.

PSYC 960 Advanced Psychotherapy with Children 3 cr.

Theories and treatment interventions used in therapy with children are explored. Opportunities to practice basic psychotherapeutic skills in interviewing, treatment planning, and intervention provided under intensive supervision. Prerequisite: PSYC 860 or permission.

PSYC 961 Psychology and Medicine II 3 cr.

The roles of psychological and environmental variables in the development, maintenance, and recovery from disease are studied. Approaches to studying relationships between stress, coping, and disease are emphasized. Prerequisite: PSYC 861.

PSYC 962 Hypnotic Methods in Psychotherapy 2 cr.

In-depth study of theory, research, and the clinical practice of hypnosis. Prerequisites: PSYC 830, PSYC 835, or their equivalents, and instructor permission.

PSYC 971 Family and Couples Clinic 1-6 cr.

Students will be assigned clients in the Family Clinic. A team training model is used with close supervision by the instructor. Available for variable credit and repeated enrollment.

Prerequisites: PSYC 834 or its equivalent, successful supervised clinical experience, and instructor permission.

PSYC 972 Stress and Habit Disorders Clinic 1-6 cr.

A seminar/clinic in the assessment and treatment of stress and habit disorders. Clients are assigned to students from the Stress and Habit Disorders Clinic. Available for variable credit and for repeated enrollment. Prerequisites: PSYC 831, PSYC 835 or their equivalents, and instructor

permission.

PSYC 973 Assessment Clinic 1-6 cr.

Students will be assigned clients from the Assessment Clinic. Emphasis is placed on skill development in interviewing, administration and scoring of psychological assessment instruments, writing of reports, consultation with referral sources, and supervision. A team training model is used with close supervision by the instructor. Available for variable credit and for repeated enrollment. Prerequisites: PSYC 841, PSYC 842 or their equivalents, and instructor permission.

PSYC 974 Special Projects/Intake Clinic 1-6 cr.

Students participate in specialized clinical activities. Specific methods of assessment, intervention, and consultation vary according to the special clinical project. Available for variable credit and repeated enrollment. Prerequisites: PSYC 831, PSYC 842, PSYC 832, or their equivalents and instructor permission.

PSYC 976 Introduction to Supervision & Consultation 3 cr.

This course surveys professional issues, theories, existing research and implementation methods in supervision and consultation. Using lectures, discussions, and simulations, students will learn how to promote the development of individuals and organizations that are involved in the resolution of human problems in adaptation and facilitation of human development.

PSYC 981 Special Topics 1-6 cr.

Examines Special Topics in depth. Students prepare presentations representing selected research areas. Prerequisite: Permission.

PSYC 982 Independent Study in Psychology 1-6 cr.

Individual students develop and conduct research studies in consultation with a faculty member. Prerequisite: Permission.

PSYC 993 Advanced Psychological Practicum 1-21 cr.

Provides supervised experience in applied settings. Variable credit, depending on setting. Prerequisite: Permission.

PSYC 994 Internship 3 cr.

An in-depth supervised experience designed to assure a professional level of competence in several skill areas and to assist in developing an identity as a health care professional. May be taken full-time for twelve months or half-time for twenty-four months. Prerequisite: Permission.

PSYC 995 Doctoral Project (Dissertation) 3-9 cr.

A culminating scholarly activity requiring the mastery of an area of professional interest. Requires a review of relevant literature and the collection and analysis of data. An oral presentation of the proposal and an oral defense of the finished product are required.

QBUS: Quantitative Business

Department of Information Systems and Decision Sciences
Eberly College of Business and Information Technology

QBUS 500 Foundations of Business Statistics 3 cr.

A conceptual course designed to familiarize students with the basic techniques for obtaining, organizing, summarizing, analyzing, presenting, interpreting, and acting upon numerical activities. Topics include descriptive statistics, random variables, probability distributions, statistical sampling and survey methods, testing of hypotheses, analysis of variance, regression analysis, and time series. Major attention is given to identifying and describing the process involved in carrying out a statistical analysis and how statistical methods may be used within the managerial and business decision process.

QBUS 550/* Data Science for Business 3 cr.

An introduction to the practice of data science with a broad set of data analytic skills based on building real analytic applications on a variety of real data, including big data, unstructured data and textual data. These skills include accessing and transferring data, applying various analytical frameworks, applying methods from machine learning and data mining, conducting large-scale rigorous evaluations with business goals in mind, and visualizing data analytic results.

QBUS 581 Special Topics 3 cr.

QBUS 601 Data Analysis and Decision Making 3 cr.

Familiarizes students with statistical techniques for making comparisons and predictions about a population based on sample data. Major attention is given to identifying and describing the process involved in carrying out a statistical analysis and how a variety of desktop tools and statistical packages may be used within the managerial and business decision process. Topics include analysis of variance, regression (linear and multiple), time series, statistical process control, decision analysis, linear programming, and simulation.

QBUS 604 Seminar in Methodology of Business Research 3 cr.

Helps students acquire a basic understanding of the research process and a knowledge of the research methods needed in the design and execution of a competent applied behavioral research. Emphasizes measurement and scaling, survey research, and data analysis. Prerequisite: QBUS 601.

RHAB: Rehabilitation

Department of Communication Disorders, Special Education and Disability Services
College of Education and Communications

RHAB 590 Improving Professional Practice in Instructional Settings 1-3 cr.

and

RHAB 591 Improving Professional Practice in Instructional Settings 1-3 cr.

Reviews current research in instructional practices, motivational techniques, and professional issues. May focus on any of these aspects of teaching, learning, or professional practice. May be presented with a kindergarten through grade twelve, elementary, middle school, secondary, or adult orientation.

Offered only for continuous professional development and may not be applied toward a graduate degree. Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

SAFE: Safety Sciences

Department of Safety Sciences

College of Health and Human Services

SAFE 520/* Law and Ethics in the Safety Profession 3 cr.

Examines ethical and legal issues faced by practicing safety professionals. Students identify and evaluate these issues in terms of their own value system, as well as legal and prudent practice within the safety, health, and environmental profession. Case studies and anecdotal presentations are used to examine common issues and to prepare the students for their potential roles as expert witnesses in various forms of litigation. Specific reference is made to participation of the safety professional in workers' compensation cases, Occupational Safety and Health Review Commission hearings, class action suits, and trials by jury. Prerequisite: Permission of the instructor.

SAFE 541/* Accident Investigation 3 cr.

Focuses on the various aspects of accident investigation such as recent theories associated with accident causes, investigative techniques, data acquisition, structure of investigative reports, management responsibilities, and remedial actions. Emphasizes determining sequence of events to develop management actions which will prevent recurrence of accidents. Prerequisite: Permission of instructor.

SAFE 542/* Current Issues in Safety 3 cr.

Examines the emerging issues currently faced by the safety, health, and environmental (SH&E) practitioner that extend beyond the conventional areas of academic preparation. In addition to exploring certification, ethics, compliance issues, quality management, worldwide concerns, and other common issues, each student will research and present information on a specific item of current relevance in the safety profession. Prerequisites: SAFE 211 and SAFE 301 or permission of the instructor.

SAFE 543/* Construction Safety 3 cr.

In-depth coverage of hazard recognition, evaluation, and control principles used for the variety of phases of construction. Information regarding the development of a construction safety program along with extensive coverage of federal standards related to the construction industry is also provided.

Prerequisite: Must be enrolled as a graduate level Safety Sciences major.

SAFE 561/* Air Pollution 3 cr.

Focuses on the various major aspects of the air pollution problem. These include sources of pollution, evaluation and engineering control of pollutants, government regulations, atmospheric chemistry and dispersion, and human and nonhuman effects. Emphasizes information that is practical for the safety sciences and industrial health professionals. Prerequisites: CHEM 101 and 102 or equivalent and SAFE 301 or equivalent courses or permission of the instructor.

SAFE 562/* Radiological Health 3 cr.

Studies of problems associated with ionizing radiation in the human environment. Emphasizes biological effects, radiation measurement, dose computational techniques, exposure control, and local and federal regulations. The study and use of various radiological instruments are included. Prerequisite: SAFE major or permission of instructor.

SAFE 565/* Right-to-Know Legislation 3 cr.

Covers both the federal and selected state right-to-know laws and related legislation. The scope, application, and enforcement of the various laws, including specific legal and moral obligations, are discussed. Strategies are explored and developed to identify the means by which employers can gain compliance with regulatory requirements. Prerequisites: SAFE 301 and SAFE 311 or permission of the instructor.

SAFE 581 Special Topics 3 cr.

A dual-level elective offering in which the specific topic may vary from one term to the next. Prerequisite: Permission of the instructor.

SAFE 602 Research Methods in Safety Management 2 cr.

Prepares individuals for the conduct of research in safety and its numerous subspecialties. Research paradigms, experimental design, data sources and collection, and statistical methods are covered in detail. Students will complete a capstone project which requires the in-depth analysis and proposed solutions for a safety sciences problem in a workplace setting. Prerequisite: Concurrent registration in SAFE 791.

SAFE 603 Human Relations in Safety Management 3 cr.

Integrates various behavioral science theories into the practice of safety management. Areas covered are motivation, communications, managerial interactions, and controlling worker behavior as it relates to accident causation. Prerequisite: SAFE major or permission of instructor.

SAFE 604 Industrial Toxicology 3 cr.

Principles and techniques for evaluating toxicological properties of chemical substances are studied with particular emphasis on extrapolation of information to determine permissible exposure limits in the workplace. Acquaints students with requirements for operating an animal toxicology facility as well as means of obtaining relevant human experience data. Prerequisites: CHEM 101, CHEM 102, MATH 217, or permission of instructor.

SAFE 605 Application of Safety Engineering Principles 3 cr.

Prepares the student with a fundamental understanding of those hazards which can contribute to accidental injury and damage. These hazards are studied in an engineering context; their physical and chemical characteristics are studied in depth in order to apply the appropriate hazard control measures.

Prerequisite: PHYS 111, MATH 105, or equivalent, or permission of instructor.

SAFE 606 Hazardous Materials Management 3 cr.

Examines the technical and management aspects of handling hazardous materials, including

hazardous waste. Definitions and the procedures for determining hazard properties are reviewed. The student is introduced to the various regulations that pertain to hazardous materials. Responsibilities for creating/receiving, storing, handling/using, shipping, and ultimately disposing of hazardous materials are discussed in detail. Examination of current trends and future directions is included. Prerequisites: SAFE 311, CHEM 101, and CHEM 102 or permission of the instructor.

SAFE 610 Safety, Health, and Environmental Administration 3 cr.

Examines administrative concepts and principles regarding organizing and managing the functional areas of safety, health, and the environment within an organization. Students are introduced to management practices unique to SH&E programs as well as concepts related to organizational culture, labor relations, professional ethics, workers' compensation, and medical management.

SAFE 620 Safety Data Management 3 cr.

Covered are design of loss incident source documents and code dictionaries; procedures to collect accident cost and cause data; accident cause analysis; and data for management accountability and decision making. Prerequisite: SAFE 412 or permission of instructor.

SAFE 621 Programming Safe Behavior 3 cr.

Students learn to apply behavior principles to motivate safe behavior (SB) in the workplace. Included are Programming Safe Behavior, SB program funding proposals, employee performance analysis, safe behavior definitions, workplace motivations and incentives, and SB program design, implementation, and evaluation. Prerequisite: Permission of the instructor.

SAFE 623 Advanced Safety Administration 3 cr.

Analyzes the management structure for its procedures, organizations, policies, and departmental competencies as they relate to safety. Ways to audit and improve management's safety effectiveness are covered. Prerequisite: SAFE major or permission of instructor.

SAFE 624 Solving Safety Problems 3 cr.

Students are presented with common scenarios that safety professionals face while trying to advise management on ways to prevent accidents. Students use problem-solving skills and safety knowledge to deal effectively with and resolve safety management problems such as being assigned a safety responsibility that is clearly another manager's responsibility and having objections raised about one's proposed project plans. Prerequisite: SAFE 603 or permission of the instructor.

SAFE 625 Risk Strategies for the SH&E Professional 3 cr.

Provides the student with a thorough understanding of the fundamentals of risk management, including leading-edge risk identification, control, finance, and transfer recommendations. Addresses workers' compensation, product risk management, construction risk management and wrap-up programs, catastrophic risk management, quantitative methods, risk finance, and risk management technology.

SAFE 630 Pollution Control 3 cr.

Introduces students to both management and engineering strategies in the prevention and control

of pollution to the environment from industrial activities. Includes a brief history of pollution, legal aspects of prevention and control, the management of major types of industrial wastes, and the control of releases into both water and air.

SAFE 644 Preventing Unsafe Acts 3 cr.

Accident cause analysis narrowed to behavior analysis to determine motivation problems and behavior skill deficiencies with appropriate intervention techniques are covered. Cost/benefit analysis of accident costs versus training program benefits and OSHA training requirements are presented. Proposals for funding of training programs as well as writing behavioral objectives are covered. Course descriptions and course, unit, and lesson outlines as well as lesson plan development are presented. Lesson plan presentations and evaluation techniques are included.

SAFE 645 Principles of Occupational Safety 3 cr.

Provides the student with fundamental knowledge of the technical and managerial aspects of the safety and health function within an organization. The effects of loss incidents, accident causation, safety and health legislation, and safety program development are among the managerial aspects covered. The technical aspects of the course focus on the recognition, evaluation, and control of common safety, fire, and repetitive motion hazards in the workplace. Does not count toward degree requirements for the MS Degree in Safety Sciences.

SAFE 647 Applied Ergonomics 3 cr.

Ergonomic principles used in the identification, analysis, and implementation of intervention strategies to address hazards in the workplace are presented. Focus is on the application of strategies to identify and correct ergonomic problems in the workplace using evaluation equipment and video case studies of actual workplace situations. Prerequisite: SAFE 347 or equipment or permission of the instructor.

SAFE 660 Applied Industrial Hygiene 3 cr.

Examines the current expectations and responsibilities of professionals engaged in the practice of industrial hygiene. Students become familiar with 1) the current approaches to anticipating and identifying potential health hazards in the workplace and/or environment; 2) methods and techniques for determining quantitatively the amount of environmental stresses present; and 3) proper strategies and methods for implementing effective controls. Prerequisite: CHEM 101, SAFE 330, and SAFE 430 or equivalent, or permission of the instructor.

SAFE 663 Industrial Hygiene Laboratory Methods 3 cr.

Laboratory methods germane to industrial hygiene sampling and analytical methods are studied in depth. Introduces a variety of laboratory procedures as well as biological monitoring. Sampling and analytical statistics are also emphasized. Prerequisites: SAFE 302 and SAFE 303 or permission of instructor.

SAFE 664 Industrial Noise Control 3 cr.

Provides an understanding of the physics of sound, functioning of the human hearing mechanism, instrumentation for measuring sound levels, and application of control strategies. Emphasis is placed on engineering controls, although administrative controls and use of personal protective equipment are discussed as well. Components of an overall continuing, effective

hearing conservation program are reviewed in detail.

SAFE 667 Principles of Occupational Health 3 cr.

Provides comprehensive coverage of the industrial hygienist's responsibility for recognition, evaluation, and control of environmental stressors arising in or from the workplace. Students learn how to recognize and evaluate exposures to chemical, physical, and biological hazards. Emphasis is also placed on the identification of appropriate control strategies, including program development and evaluation. This course will not count toward meeting the degree requirements for the MS Degree in Safety Sciences.

SAFE 672 Process Safety in the Chemical Industries 3 cr.

Designed to cover all important aspects of loss prevention as it is practiced in the chemical process industries. Seeks to prepare the safety professional so that he/she may be able to work more effectively with chemists and chemical engineers in joint hazard identification, evaluation, and control projects.

Prerequisite: SAFE 311 or equivalent or permission of instructor.

SAFE 681 Special Topics 3 cr.

A graduate-student-only elective offering in which the specific topics may vary from one term to the next. Prerequisite: Permission of instructor.

SAFE 699 Independent Study 3 cr.

Study in depth of a topic not available through other course work. Student works with supervising faculty member on carefully planned, student-initiated project. Prior approval is necessary. Prerequisite: Permission of instructor.

SAFE 701/801 Environmental Impact Analysis and Documentation 3cr.

Using an environmental impact statement as a model, this course is designed to provide the student with various regulatory, scientific, mathematical, and risk-based approaches and tools to conduct environmental impact assessments for industrial technologies by analyzing affected environments and by determining the significant environmental consequences of industrial technologies on various resources (e.g., water, land, human health, etc.). The student is also provided with information on how to generate reports/forms base on implementing regulatory and other requirements to document information from environmental/risk assessments and analyses.

SAFE 773/873 Disaster Preparedness 3 cr.

Principles and techniques for preparing for various types of disasters. Students are acquainted with requirements necessary to develop workable plans for natural and industrial types of disasters. Loss prevention measures are discussed, directed toward preservation of organization resources.

SAFE 774/874 Fire Safety in Building Design 3 cr.

Examines fundamental principles for the safe design of buildings from a fire hazard standpoint. Emphasis is given to an understanding of building codes, fire properties of building materials,

building design criteria to limit the spread of fire and smoke, control of ignition sources, storage of combustibles and flammables, life safety, and active fire protection systems. Prerequisite: Must be enrolled as a Graduate Level Safety Sciences major.

SAFE 791 Capstone Project in Safety Sciences 1 cr.

Students will be required to submit a comprehensive project based on the cumulative knowledge and skills acquired in the program coursework. Co-requisite: Concurrent registration in SAFE 602.

SAFE 795 Thesis 3 cr.

The thesis will require a committee review with one faculty member serving as the student's advisor. The committee will also include two additional faculty members and a representative of the dean of the College of Health and Human Services. Prerequisite: Permission of instructor.

SAFE 800 Pedagogical Practices in Safety Education 3 cr.

Application of educational theories to the safety educator role in higher education will be explored. The course will review the role of the teacher in both the classroom and internship settings, teaching strategies, and student centered learning outcomes as they pertain to safety sciences.

SAFE 802 Safety Management Systems 3cr.

This seminar examines administrative concepts and principles regarding organizing and managing safety performance within an organization. The course is designed to explore the current research topics in managing safety including: dimensions of safety performance, management systems, culture & climate, decision-making & risk, leader-member relations, attitudes and values, & international and cultural issues. The course focuses on identifying underlying theoretical and conceptual frameworks characterizing organizational safety research and helping students develop a sense of the issues and questions that the field addresses.

SAFE 803 Epidemiological Analysis in Safety Sciences 3cr.

Course will focus on epidemiological based test procedures commonly used in published safety research. Students will be required to formulate research hypotheses, test them using the appropriate quantitative research methodologies, and interpret results.

SAFE 804 Legal Aspects of Safety Sciences 3cr.

This course examines the legal framework within which the safety, health and environmental professional must perform. Consideration is given to the historical development of legal aspects of the profession, including current guidelines that impact on regulatory compliance and professional practice. Personal liabilities associated with professional practice, including the possibility of criminal sanctions for workplace injuries, are presented. Prerequisites: None

SAFE 805 Strategies in Risk Control 3 cr.

Tools and strategies for the qualitative and quantitative assessment and management of environmental and occupational risks will be presented.

SAFE 806 Advanced Topics in Environmental Health and Safety 3cr.

This course will present progressive topics in the environmental, health, and safety field. Leading edge applications in the areas of industrial hygiene, ergonomics, environmental safety, fire protection and safety management will be covered.

SAFE 807 Applied Research III: Doctoral Colloquium in Safety Sciences 3 cr.

This graduate colloquium is designed to have the students work closely with their classmates and the instructor to explore and present various components of safety research. Colloquium students will explore and present details of various research methods in order to gain valuable practice with research and technical presentations.

SAFE 808 Curriculum Evaluation in Safety Education 3 cr.

This course examines the various curriculum designs in safety at the undergraduate and graduate level. The student will analyze current accreditation standards in safety education with an emphasis on curriculum evaluation. The students will learn methods for conducting ongoing curriculum revision based on a quality outcomes assessment plan.

SAFE 810 Applied Research I: Experimental Design 3 cr.

This course will cover experimental and multivariate statistical procedures. Topics include advanced coverage of Analysis of Variance (ANOVA), multivariate analysis of variance (MANOVA), Analysis of Covariance (ANCOVA), post-hoc tests, planned comparisons, and randomized block designs. Prerequisite: SAFE 803.

SAFE 811 Applied Research II: Multivariate Analysis 3cr.

This course will explore multivariate analysis techniques commonly used in safety sciences research. Topics include multiple regression, exploratory and confirmatory factor analysis, and linear discriminate analysis.

SAFE 813 Practicum in Safety Education 3 cr.

This course is designed to give students a context for applying the concepts of teaching and learning in safety education. Students are provided opportunities to participate in numerous phases of the teaching role and to experiment with different teaching methods. The focus of the practicum is in the areas of course development, delivery methods, the teaching process, and evaluation as they relate to safety sciences. Students will be required to deliver course modules in classroom settings. Prerequisites: SAFE 800, SAFE 808.

SAFE 995 Dissertation 1-12 cr.

*Indicates dual-listed class

SAHE: Student Affairs in Higher Education

Department of Student Affairs in Higher Education
College of Education and Communications

SAHE 590 Improving Professional Practice in Instructional Settings 1-3 cr.
and

SAHE 591 Improving Professional Practice in Instructional Settings 1-3 cr.

Reviews current research in instructional practices, motivational techniques, and professional issues. May focus on any of these aspects of teaching, learning, or professional practice. May be presented with a kindergarten through grade twelve, elementary, middle school, secondary, or adult orientation. Offered only for continuous professional development and may not be applied toward a graduate degree. Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

SAHE 621 History of Higher Education in the United States 3 cr.

Growth and trends in higher education with emphasis on the twentieth century. In addition to the traditional modes of postsecondary education, continuing education programs, community colleges, and adult education will also be examined. A secondary focus will be the evolving role of student affairs.

SAHE 624 Student Affairs Functions in Higher Education 3 cr.

Overview of student affairs work in higher education, highlighting functional areas of student affairs, organization, philosophy, and the role of the services applied to the institution and the profession.

SAHE 625 Student Development in Higher Education 3 cr.

Designed to expose students to a variety of theoretical models underlying human behavior and development. Through presentations, demonstrations, small group discussions, experiential activities, readings, and position papers, students evaluate the practical applications of contemporary personality and human development theories.

SAHE 631 Student Development in Higher Education II 3 cr.

Provides an overview of student development theories and the student development model. Includes the application of assessment, goal setting, intervention strategies, environmental management, and evaluation in higher education settings. Explores issues such as changing sex roles, sexual identity, life planning, and needs of special student groups.

SAHE 634 Assessment and Evaluation in Student Affairs 3 cr.

This course is an overview of the fundamental principles of assessment and evaluation as they pertain to student affairs. Learning outcomes, data collection and analysis methods, methodological principles, instrumentation in student affairs, and broad issues related to a comprehensive student affairs assessment and evaluation approach will be explored. Prerequisites: SAHE 621, SAHE 624, and SAHE 625

SAHE 635 Topical Areas in Student Affairs 3 cr.

Provides the graduate student an opportunity to examine areas of content related to the study of student affairs (e.g. technology, academic governance, small colleges, and the community college) in higher education that have an impact on the student affairs profession and the work of practitioners.

SAHE 640 Equity, Diversity, and Inclusion in Higher Education 3 cr.

An overview of the issue of cultural pluralism in higher education. Encourages the development of culturally effective student affairs practitioners who will promote cross-cultural understanding

among college students. Examines the projected demographic realities for the groups traditionally termed “minority” and explores notions of culture, oppression, marginalization, racial identity, and multicultural organizations. Exposure to these issues will occur in both the theoretical and personal realms with student introspection and participation intended as key features of the course.

SAHE 646 Interpersonal Sensitivity 3 cr.

Participants explore their interpersonal interaction style in groups and individually. Human potential of the students is developed as they enter into authentic, honest, and trusting relationships within the context of a small-group experience, encouraging an examination and understanding of oneself and one’s impact on others.

SAHE 681/781 Special Topics 3 cr.

SAHE 698 Internship 3 cr.

A supervised study and/or work experience of at least 150 hours with an institution of higher education or an appropriate professional association determined individually between the student and the supervising faculty member. Sites must be approved by the department. Prerequisite: Permission only.

SAHE 713 Legal Issues in Student Affairs 3 cr.

Emphasizes the legal environments of postsecondary institutions, legal processes and analyses, and problems incurred in the administration of colleges and universities. Addresses legal issues confronted by student affairs practitioners, how to recognize these issues, and how to act within the parameters of the law.

SAHE 727 Spirituality in Higher Education 3 cr.

Explores the intersection of spirituality with the learning, growth, and development that takes place as a function of participating in higher education. Addresses questions about the historical and current role of faith and spiritual development in higher education, various dimensions of religious and spiritual expressions and traditions in higher education, and how colleges and universities incorporate spirituality as a function of higher education. Prerequisites: Admission to the SAHE program or permission of instructor.

SAHE 731 Practicum in Student Affairs 3 cr.

Affords the student an opportunity to gain practical experience in dealing with theories of his/her specialties. Includes one or two semesters in one of the student affairs offices at IUP or another institution under the leadership of a departmental director or coordinator.

SAHE 733 Management of Organizational Behavior in Higher Education 3 cr.

Teaches managerial concepts and skills for managing student personnel programs or services. Concepts covered include the Process School of Management, Situational Leadership, Ethics, and Management Theory models.

SAHE 735 Individual and Group Interventions 3 cr.

Practical experience in skilled helping techniques, including practice in one-on-one interaction, skill in designing and implementing developmental group intervention (workshops), and skill in developing mentoring relationships. Students apply theoretical learning into practical application. Prerequisites: SAHE 621 and SAHE 624

SAHE 737 The American College Student 3 cr.

Examines the culture of undergraduate students in American higher education to prepare professionals for the clients they will serve. Focuses on the changing student clientele and its subgroups and cultures. Undergraduate characteristics, attitudes and values, and broad issues regarding their participation in the educational experience are explored.

SAHE 740 Contemporary Issues in Higher Education 3 cr.

Introduces students to a variety of current issues in higher education that have a dramatic impact for students, the student affairs profession, and the work of student affairs administrators. Strategies to address major issues are discussed.

SAHE 795 Thesis 3 or 6 cr.

SDR: Interdisciplinary Program

College of Natural Sciences and Mathematics

SDR 586 Selected Topics in SDR 1-6 cr.

Lecture-laboratory course designed for first responders in the Weapons of Mass Destruction community and related emergency planners. Topics will be related to the most recent advances in chemical, biological, radiological, and nuclear (CBRN) detection, identification, analysis, and mitigation. Topics and instructors may be the same or may vary. Prerequisites: Permission of instructor and local, state, or federal agency/organization authorization.

SDR 600 Effects of Biological Materials Use 5 cr.

This is the biology course associated with Level 4: Advanced Characterization of Unknown Substances, a module of chemistry, biology, and radiology/nuclear physics courses developed for first responders in the Weapons of Mass Destruction community. Investigation and analysis of current status of bioterrorism as it relates to different microbes and potential bioterrorism agents. Integrates advanced safety techniques in handling microbes with basic principles and facts of microbiology, microscopy, and microbe identification using molecular, biological, and immunological techniques. Features in-depth discussion of principles and applications of polymerase chain reactions. Hands-on training is complemented by formal lectures. Prerequisites: BIOL 111, 112 and 250, CHEM 232, and BIOC 301/311 (biochemistry lecture and lab) or equivalent or instructor permission and local, state, or federal agency/organization authorization.

SDR 601 Advanced Characterization Theory and Practical Applications Using GC/MS, FT-IR, and Organic Chemistry 5 cr.

This is the chemistry course associated with Level 4: Advanced Characterization of Unknown Substances, a module of chemistry, biology, and radiology/nuclear physics courses developed for first responders in the Weapons of Mass Destruction community. Designed for experienced members of the first responder community, this intensive, advanced-level chemistry course

focuses on the hazards, reactions, detection, and identification of Chemical Warfare Agents, selected Toxic Industrial Chemicals, selected Toxic Industrial Materials, and important precursors. The principles and applications of Infrared Spectroscopy and Gas Chromatography/Mass Spectrometry are emphasized. Additionally, the course focuses on actions required in the event of an attack, accident, or incident involving chemical WMD. Prerequisite: CHEM 111, 112, 231, 232, or equivalent or permission of instructor and local, state, or federal agency/organization authorization.

SDR 602 Short- and Long-Term Effects of Radiological Materials Use 2 cr.

This is the radiology/nuclear physics course associated with Level 4: Advanced Characterization of Unknown Substances, a module of chemistry, biology, and radiology/nuclear physics courses developed for first responders in the Weapons of Mass Destruction community. Designed for experienced first responders with significant prior knowledge in general physics concepts, this is an advanced-level course in radiation detection and radiology. It provides effective training on radioactive materials, radiation detection, identification of isotopes, quantifying materials (activities of the sources) dispersed in an area, and radiation dosimetry to estimate exposure and radiological consequences. This advanced-level course requires the understanding and application of the theoretical concepts using the scientific methods, analysis, synthesis, and complex problem-solving skills in radiation and radiological physics. Prerequisites: PHYS 111, 112, 121, and 122 or equivalent or permission of instructor and local, state, or federal agency/organization authorization.

SDR 603 Advanced Field Experience in Disaster Response 6 cr.

Designed to provide students with an opportunity to apply classroom learning to response to real and mock incidents that involve chemical, biological, radiological, and nuclear (CBRN) weapons. The students are required to analyze, interpret, and draw conclusions based on the data collected and to make the appropriate response call. Prerequisites: SDR 600, 601, and 602 and local, state, or federal agency/organization authorization.

SDR 610 Advanced Techniques in Biotechnology for Disaster Response 5 cr.

Introduction to advanced techniques and procedures used in biological research as they relate to assessing detrimental bio-agents and infectious diseases. Examines advances in existing sensing technologies while introducing the latest innovations in bio-detection technologies. Prerequisites: SDR 600, 601, and 602 and local, state, or federal agency/organization authorization.

SOC: Sociology

Department of Sociology
College of Humanities and Social Sciences

SOC 517/* Global Service Learning 3 cr.

Provides a forum for critical reflection on community-driven service, cross-cultural experiences, and global citizenship. Progresses through a framework, which explicitly links personal experience and readings with regular writing assignments in a journal and class discussion. Reflects on both the purposes of their service work as well as on its limits as a response to specific needs within the community, and more general problems of social justice. Through the

experience of interaction and reflection, students learn to apply knowledge and skills in the real world, exercise critical thinking, develop self-learning and helping skills, develop societal knowledge and sensitivity, and enhance personal development. Explores issues of social responsibility and citizenship in relation to the social problems with which they become acquainted through their community work. Prerequisite: Permission of the instructor.

SOC 527/* Social Perspectives on Intimate Partner Violence 3 cr.

Considers the range of theoretical explanations for the pervasive violence between intimate partners. Particularly examines the research on intimate partner violence and the implications of this research for programs and policies assisting both the victim and the abuser.

SOC 528/* Child Abuse 3 cr.

Examines the prevalence, causes, and social implications of physical, sexual, emotional, and neglect forms of child abuse in society. Child abuse is studied from the individual, family, and societal level perspectives. Potential intervention strategies will also be considered.

SOC 542/* Medical Sociology 3 cr.

A review of medical sociology. Focuses upon the sociological examination of health, illness, and healing, health inequalities, medicalization, medicine as a profession, healing occupations, interactions within medical settings, the social organization of health services, and bioethics. Current, major issues in public policy and healing.

SOC 552/* Disability and Society 3 cr.

Analyzes disability from a sociological perspective. Includes a consideration of historical and current views of disability and a review of related concepts from the fields of medical sociology and the sociology of deviance. Also includes an analysis of the effects of disabilities on individuals and families through the life course and a consideration of related ethical, economic, political, and social policy issues. The emphasis is on disability as a social construction.

SOC 581/681/781/881 Special Topics in Sociology 3-6 cr.

Seminar focuses on specialized areas in the discipline not covered by regular courses. Students will do extensive reading in the area. Courses may be repeated under different subtitles.

SOC 698/798 Internship 3-6 cr.

Supervised experience in public or private organizations that extends and complements classroom instruction. Students gain practical experience and apply their skills to human service agencies, policy organizations, or research settings. Prerequisite: Permission.

SOC 699/799/899 Independent Study in Sociology 1-3 cr.

Students wishing to specialize beyond course work are encouraged to work on a one-to-one basis with faculty members in independent study. Students may elect up to a total of six semester hours of independent study.

SOC 700 Proseminar 1 cr.

Proseminar (professional seminar) helps students to develop master's-level academic skills in Sociology. It introduces students to the skills needed to become a professional sociologist with

attention focused on first-year initiation, preparation, and socialization into the discipline and local departmental culture. Prerequisites: Graduate standing in the Sociology Master's Program.

SOC 704/804 Social Policy 3 cr.

Focuses on the development of social policy, first and foremost; on the history and development of the social welfare system in the United States with particular attention to the concepts used to discuss and explain social welfare institutions' policies and programs; on the mechanisms and structures to deliver services; and on the factors that have tended to constrain or facilitate the attainment of social justice. Development of social welfare policy is traced within the context of the social and political economy of the period to gain an understanding of how political, economic, and social ideologies have shaped attitudes about social policy.

SOC 705 Research Seminar in Sociology 3 cr.

Examination of diverse research designs in the social sciences. Focuses on understanding and critique of designs in the social sciences and on integration of theory and research. Special attention given to development of thesis proposal. Required for MA in Sociology.

SOC 707/807 Scholarly Writing in the Social Sciences 3 cr.

This seminar focuses on scholarly writing and communication for sociologists. Students will review the mechanics of writing social scientific papers, reports and presentations and will learn how to synthesize research literature, develop conceptual frameworks, and persuasively argue based on evidence. Students will learn and practice skills for writing, editing and revision. Coverage includes writing for thesis/dissertation, applied research projects, and practical applications within the discipline. Prerequisites: Graduate standing.

SOC 709 Contemporary Sociological Theory 3 cr.

Examination of major systems of sociological theory and major theoretical controversies vying for attention in contemporary sociology. Emphasis given to theories in macrosociology, especially functionalism, neo-Marxian conflict theory, and societal evolutionism. Required for MA in Sociology.

SOC 710/810 Sociology of Human Services 3 cr.

Introduction to the theoretical and applied roles of human services in our society. Organizational theories, delivery systems models, and implementation issues are discussed.

SOC 711 Human Services Administration 3 cr.

Examines the management of human service agencies, including personnel supervision, financial planning, public relations, and social policy issues. Evaluation design, program monitoring, and social impact measurement are also discussed.

SOC 721/821 Sociology of Health Care 3 cr.

Examines the contrasting perspectives in the field of medical sociology, the structure of health care institutions, and the operation of health care providers. The social, environmental, and occupational factors in health and disease are considered as well.

SOC 730/830 Seminar in Alcohol and Drug Abuse 3 cr.

The social and personal problems associated with alcohol and drug abuse are considered. Attention is given to the etiology, social factors, and economics of abuse, as well as to prevention and intervention issues.

SOC 732/832 Addiction and the Family 3 cr.

Assesses the impact of alcohol or drug addiction on individuals and their families. Research on addiction patterns, codependency, and family treatment is discussed. Special attention is given to gender and racial differences in addiction and their impact on the family.

SOC 736/836 Sociology of the Family 3 cr.

Involves the sociological analysis of the family from a variety of theoretical viewpoints such as functionalism, conflict theory, exchange theory, symbolic interactionism, systems theory, and developmental theory. Special emphasis is placed on the contemporary American family. However, cross-cultural and historical comparisons are made, with the focal theme being the “decline of the family.” Specific topics covered include gender, the family in historical context, power relationships and family roles, parent-child interaction, marital satisfaction, marital disruption, and the interrelationships between race/ethnicity, social class, work roles, the family, and family policy. Prerequisite: Graduate only.

SOC 744/844 The Sociology of Deviance 3 cr.

Relationship between individual deviance and social and cultural factors is examined. How different groups set limits for acceptable behavior is analyzed in comparative and historical context.

SOC 746/846 Theories of Sociological Social Psychology 3 cr.

Surveys a broad range of theories and substantive topics within field of sociological social psychology. Includes examination of influential theoretical and empirical work, both classic and contemporary that comprise the field’s various perspectives. Emphasis on themes, perspectives, methods, and substantive topics specific to the sociological perspective on social psychology. Prerequisite: Graduate standing

SOC 748/848 Gender and Society 3 cr.

Considers the position of women and men in society. Examines current perspectives and research on the nature of gender differences and causes of gender inequality. Explores how gender is structured and maintained in both public and personal lives, in such arenas as family, education, and work, and in gendered interactions of friendship and love, sexuality, and violence.

SOC 754/854 Social Inequality 3 cr.

Examines central theoretical perspectives on social inequality. Considers such topics as the nature of social classes and inequality; characteristics of working class, poor, and super-rich; gender and racial inequality; and how social policies affect inequality in the United States.

SOC 756/856 Social Change 3 cr.

Explores nature and consequences of social change, alternative theoretical perspectives on social change, and how social change might be implemented. Also discusses lessons to be learned from various planned change efforts.

SOC 757/857 Aging and Society 3 cr.

Focuses on the social problems encountered by aging individuals in various societies. The impact of sociological factors, such as social class, ethnicity, and technological change, on the lives of the elderly is studied. The institutional structures and services designed to cope with changing demographics are also discussed.

SOC 762/862 Analysis of Social Data 3 cr.

Introduces students to statistics and their use in analyzing and understanding social phenomena and social data. In particular, helps students develop the skills and knowledge needed to conduct their own quantitative research, both as graduate students and as professionals, and to better understand and critique research which students come across in their work. By the end of the course, students will have an understanding of the concepts underlying the use of statistics, the ability to critique and question statistics they encounter in daily life, the ability to use professional statistical software (such as SPSS) comfortably, and the ability to use many different statistical techniques in their own research. Course will also provide a foundation for learning more advanced statistics.

SOC 763/863 Quantitative Research Methods I 3 cr.

Examination of diverse research designs in the social sciences, with a particular emphasis on quantitative research designs. The course will focus on understanding and critiquing quantitative research designs. Special attention will be given to the integration of theory and research. Specific content includes concepts such as causality, internal validity, external validity, reliability of measurement, operational validity, sampling, and specific research designs.

SOC 764/864 Quantitative Research Methods II 3 cr.

Emphasis on advanced social science quantitative methods relevant to students in sociology, human services, and administration and leadership studies. Specific topics include multiple regression, reliability analysis, factor analysis, and logistic regression.

SOC 765/865 Qualitative Research Methods 3 cr.

Qualitative research represents one main branch of social inquiry into the human experience. This course will provide students with a solid understanding of the key principles associated with qualitative research, as well as a framework for understanding how this approach compares with quantitative research. Particular emphasis will be placed on the philosophical, social, and ethical dimensions of assuring quality and credibility in social inquiry and the resulting methodological implications. The course also offers an overview of the various types of qualitative research, such as case study, ethnography, phenomenological study, and grounded theory. Against this background, students will develop skills in the specific methods associated with qualitative research design, including sampling, data-gathering, data analysis, representation, and assurance of quality. Students will experience the range of skills involved through actually designing, conducting, and reporting on a small qualitative study.

SOC 767/867 Survey Research Methods 3 cr.

This graduate level seminar provides a foundation in the theory and methods of survey research. Students will learn the concepts of total survey error, sampling, modes of data collection,

questionnaire design, validity of survey instruments, and computer-assisted interviewing techniques. Practical issues of conducting surveys and research ethics will be addressed, along with tools for evaluating and analyzing survey data. Prerequisites: SOC 762/862 and either SOC 705 or SOC 763/863; or permission of the instructor

SOC 777 Teaching Sociology 3 cr.

Examines various aspects of the teaching process: effectively developing course goals and objectives, lecturing and leading discussion, using alternative pedagogical approaches, designing instruments to evaluate student performance, developing course syllabi, addressing diversity issues in the classroom, etc. Students will develop skills and practice in these aspects of teaching sociology. Prerequisite: Graduate standing in Sociology or permission of the instructor.

SOC 781/881 Special Topics 3 cr.

SOC 795 Thesis 3-6 cr.

For the student writing the master's thesis. A thesis proposal must be submitted to the department's graduate coordinator and approved by the Sociology Master's Committee prior to registering for thesis credits. A completed thesis involves a supervised research project approved by a committee composed of the student's thesis advisor and two additional faculty members.

SOC 798 Internship 3-6 cr.

Supervised experience in public or private organizations that extends and complements classroom instruction. Students gain practical experience and apply their skills to human service agencies, policy organizations, or research settings. Prerequisite: Permission.

SOC 802 Classical Social and Organizational Theories 3 cr.

Examines the use of classical social and organizational theories for understanding social relations and phenomena, the role of theory in the social sciences, and the historical roots and the development of both classical social theories and foundational applied organizational theories. The emphasis is on understanding the contributions and limitations of these theories, how they inform current understanding of societal relations, and critically analyzing these theoretical perspectives.

SOC 803 Contemporary Social and Organization Theories 3 cr.

Examines the use of contemporary and developing social and organizational theories for understanding social phenomena, the role of contemporary theories in the social sciences, and their relationship with classical social and organizational theories. The emphasis is on understanding the contributions and limitations of these theories, how they inform current understanding of societal relationships, their use in research, and critically analyzing these theoretical perspectives.

Prerequisite: SOC 802 Classical Social and Organizational Theories.

*Indicates dual-listed class

SPAN: Spanish

Department of Foreign Languages

SPAN 510 Medieval Literature 3 cr.

Reading and discussion of various medieval genres: brief prose narrative, epic, lyric, and didactic poetry, prose, and medieval drama. Taught in Spanish. Prerequisite for SPAN 410: SPAN 260 or permission. Prerequisite: Acceptance to Spanish graduate program or permission.

SPAN 511 Golden Age Spanish 3 cr.

An analysis of themes, motifs, and stylistic devices of Spanish poetry, novel, and theater of the Renaissance and Baroque. Taught in Spanish. Prerequisite for SPAN 411: SPAN 260 or permission. Prerequisite: Acceptance to Spanish graduate program or permission.

SPAN 512: Spanish Novel of the 19th and 20th Centuries 3 cr.

An analysis of selected novels from three major periods: the nineteenth century, the Generation of 1898, and the post-Civil War. Taught in Spanish. Prerequisite for SPAN 412: SPAN 260 or permission. Prerequisite: Acceptance to Spanish graduate program or permission.

SPAN 513: Spanish Poetry, 19th Century to the Present 3 cr.

The study and analysis of lyric poetry in Spain from nineteenth century poetry through modernism and its evolution to the present. Prerequisite for SPAN 413: SPAN 260 or permission. Prerequisite: Acceptance to Spanish graduate program or permission.

SPAN 520 Modern Hispanic Theater 3 cr.

The study and analysis of modern dramatic works from Spain and Spanish America. Particular emphasis is given to the representational aspect of the works. Taught in Spanish. Prerequisite for SPAN 420: SPAN 260 or permission. Prerequisite: Acceptance to Spanish graduate program or permission.

SPAN 531 Spanish-American Poetry 3 cr.

A study of Spanish American poetry from its early manifestations through modernism, post-modernism, and avant-garde. Taught in Spanish. Prerequisite for SPAN 431: SPAN 260 or permission. Prerequisite: Acceptance to Spanish graduate program or permission.

SPAN 553 Spanish Phonetics and Phonemics 3 cr.

An introduction to the study of the phonological system of Spanish and emphasis on improving pronunciation. Includes a theoretical basis for understanding the Spanish sound system, pronunciation practice and recordings, study of Spanish dialects, and linguistic analyses. Taught in Spanish. Required for Spanish Education majors; highly suggested for Spanish majors. Prerequisite for SPAN 453: SPAN 230; Prerequisite for SPAN 553: SPAN 603. Prerequisite: Acceptance to Spanish graduate program or permission.

SPAN 611 Teaching Spanish: Theories, Approaches, and Issues 3 cr.

An analysis of current theory in second-language acquisition and foreign language standards and use of this evolving research base to develop approaches to teaching Spanish. Theoretical framework taught in English, application to teaching Spanish taught in Spanish.

SPAN 612 Introduction to Scholarship in Spanish Applied Linguistics and Hispanic Literatures

3 cr.

An introduction to scholarship in 1) Spanish applied linguistics, 2) close reading and textual analysis, and 3) critical and theoretical approaches to Hispanic literatures. Additional treatment of current issues in these fields, including those that particularly relate to the study and instruction of the Spanish language and Hispanic literatures at the secondary and postsecondary levels. Primary language of instruction is Spanish.

SPAN 613: Introduction to Spanish Linguistics 3 cr.

Introduction to fundamental terminology and concepts in the study of the linguistics of Spanish. Overview of the Spanish sound system (phonetics, phonology), principles of word formation such as derivation and inflection (morphology), structure and grammatical relations of phrases and sentences (syntax), as well as the relationship between linguistic areas, to include semantics, language variation, sociolinguistics, and Spanish in the United States. Offered in both Spanish and English, as warranted.

SPAN 614: History of the Spanish Language 3 cr.

Reading and discussion of the development of the Spanish language, including dialectology, paleography, and language change. Taught in Spanish.

SPAN 615 The Study of Hispanic Culture 3 cr.

An analysis of the cultures of the Spanish-speaking world, presented within the framework of a variety of theories of culture, including those that particularly relate to the study and instruction of foreign languages. Primary language of instruction is Spanish.

SPAN 625 Integrating Instruction and Assessment in the Spanish Curriculum 3 cr.

Exploration of strategies for integrating assessment into instruction in the Spanish classroom and curriculum. Discussion of cutting-edge assessment models such as Integrated Performance Assessment (IPA), authentic assessment, and dynamic assessment. Design of Spanish assessments that integrate language and culture/content and serve to inform and improve student performance. Class discussions in Spanish.

SPAN 630 The Discourses of the Spanish Classroom 3 cr.

An exploration and discussion of research specifically related to the different kinds of discourse that constitute the Spanish language classroom. The discursive nature of these classrooms develops over time and fundamentally shapes not only what learners understand but also how learners are able to use the language. Class discussions will be both in Spanish and English.

SPAN 720 Seminar: Current Topics in the Teaching of Spanish 3 cr.

This capstone course features exploration and discussion of current issues and topics relevant to the teaching of Spanish. Specific topics chosen will reflect those being discussed currently in the field that have most applicability to the teaching of Spanish. Class discussions in Spanish.

SPAN 725 Action Research in the Teaching of Spanish 3 cr.

An introduction to methods of systematic enquiry into the teaching and learning of Spanish at all levels, designed to yield practical results capable of improving a specific aspect of practice and to make them public to enable scrutiny, replication and testing.

SPAN 750 Seminar: Current Topics in the Teaching of Hispanic Literatures and Cultures 3 cr.

This capstone course features exploration and discussion of current issues and topics relevant to the teaching of Hispanic literatures and cultures. Specific topics chosen will reflect those being discussed currently in the field that have most applicability to the teaching of Hispanic literatures and cultures. Class discussions in Spanish.

*Indicates dual-listed class

SPLP: Speech-Language Pathology

Department of Communication Disorders, Special Education and Disability Services
College of Education and Communications

SPLP 590 Improving Professional Practice in Instructional Settings 1-3 cr.
and

SPLP 591 Improving Professional Practice in Instructional Settings 1-3 cr.

Reviews current research in instructional practices, motivational techniques, and professional issues. May focus on any of these aspects of teaching, learning, or professional practice. May be presented with a kindergarten through grade twelve, elementary, middle school, secondary, or adult orientation. Offered only for continuous professional development and may not be applied toward a graduate degree. Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

SPLP 604 Diagnostic Methods 3 cr.

Evaluation of tests and techniques of diagnosis of speech and language disorders; interpretation of results and planning appropriate, subsequent case management. Interviewing techniques appropriate to case history taking. Writing of diagnostic and case-history reports. Must be enrolled in the following majors: Speech-Language Pathology. Co-requisite: SPLP 662.

SPLP 610 Sound System Disorders 3 cr.

Examines the processes related to perception, organization, and production specific to articulation and phonology. Theoretical and etiological foundations will be explored. Specific methods of assessment and remediation of articulation and phonology will be addressed in depth, including formal and independent analysis and remediation of persistent motor and phonological processes. Relationships between and among phonology, oral language, and literacy as well as current topics related to speech sound disorders will also be discussed.

SPLP 614 Neuropathologies of Speech and Swallowing 3 cr.

The evaluation, treatment, and prevention of disability in oropharyngeal dysphagia and motor speech disorders, both developmental and acquired. The team approach to management is emphasized.

SPLP 616 Stuttering 3 cr.

Nature and causes of stuttering. Emphasis on diagnosis and management. Counseling and learning theory application as two main approaches to treatment. Consideration of the person as a stutterer. Review of pertinent and recent research topics.

SPLP 618 Voice 3 cr.

Scientific principles of voice production and modification with emphasis on physiology, pathologies, or malfunctioning which produce voice defects; relationship between disorders of voice and personality; diagnostic and therapeutic considerations for both organic and psychogenic disorders, including the laryngectomized.

SPLP 630 Language Disorders of Children 3 cr.

Anatomical, physiological, psychological, neurological, and environmental factors related to language delay or disordered language acquisition. An inventory of language skills and means of fostering their development or compensating for inadequacies; a holistic versus specific approach to programs of remediation.

SPLP 632 Neurological Communication Disorders 3 cr.

Consideration of language, speech, and related problems resulting from neurological insult. Neurological dysfunctioning will be highlighted. Diagnosis and management of persons with aphasia, agnosias, apraxias, and dysarthrias will be emphasized, as well as the role of the family in rehabilitation and family counseling.

SPLP 635 Seminar in Communication 1-3 cr.

Intensive study of one or more areas of speech science, speech and language pathology, or audiology. Topics vary to meet the student's needs and interests. Course may be repeated for credit with a change in area considered. Prerequisites: Speech-Language Pathology major, admission to degree candidacy, and advisor approval.

SPLP 661 Advanced Clinical Practicum 2-6 cr.

Supervised practicum experience in the University Speech and Hearing Clinic with individuals exhibiting speech, language, and/or hearing dysfunction. Planning and administration of programs of therapy plus interviewing, diagnosing, counseling, and report writing.

SPLP 662 Diagnostic Clinic 1 cr.

Supervised practicum experience in performing in-depth diagnostic evaluations with individuals exhibiting any type of speech, hearing, or language dysfunction. Experience in taking case histories, conferring with patients, and report writing. Must be enrolled in the following Majors: Speech-Language Pathology. Co-requisite: SPLP 604.

SPLP 663 Hearing Testing Clinic 1 cr.

Supervised practicum experience in performing diagnostic audiological tests.

SPLP 681 Special Topics**SPLP 795 Thesis 3 cr.**

SPLP 796 Internship in Healthcare Organizations 6 cr.

Supervised clinical experience in off-campus hospital settings with individuals exhibiting speech, language, and/or hearing dysfunction. Planning and implementing programs of therapy plus interviewing, diagnosing, counseling, and report writing. Prerequisites: Methodology and on-campus practicum courses, permission of graduate coordinator.

SPLP 798 Internship in Schools 6 cr.

Supervised clinical experience in school settings with individuals exhibiting speech, language, and/or hearing dysfunction. Planning and implementing programs of therapy plus interviewing, diagnosing, counseling, and report writing. Prerequisites: Graduate methodology, on-campus practicum courses, permission of graduate coordinator, and undergraduate Professional Education Sequence.

SPLP 799 Independent Study 3 cr.

SWMD: Strategic Studies in Weapons of Mass Destruction

College of Health and Human Services

SWMD 600 Theoretical Perspectives and Threat Assessment in Strategic Studies in WMD 3 cr.

This course examines the nature, trends, context, causes, and responses to terrorism and other related threats to critical assets and infrastructures. This examination incorporates a variety of perspectives including criminological, political, psychological, and sociological. Theoretical causes of critical asset destruction are linked to proposed policy recommendations.

SWMD 605 Research Methodology in Strategic Studies in WMD 3cr.

This course examines the methods and techniques of research in Strategic Studies in WMD. The course will offer an in-depth examination of the role of research in the analysis, interpretation, and clarification of problems in Strategic Studies in WMD. The focus is on understanding and critiquing research methodologies and applying this knowledge to existing problems in security and Strategic Studies in WMD.

SWMD 610 Legal Issues in Strategic Studies in WMD & Terrorism 3cr.

This course examines the legal basis for measures taken in the interest of national security and the protection of critical assets and infrastructures. A balanced approach will be taken to analyze legal and ethical issues associated with preventing, investigating, prosecuting, and otherwise responding to threats to our nation's critical assets. These issues are wide in breadth and depth and will focus on a number of specific topics. Contemporary statutes and cases will be included throughout the course.

SWMD 612 Advanced Bioterrorism for Law Enforcement 3cr.

This course will address the microbial agents thought to comprise significant potential as weapons. Topics are organized according to biological classification (bacteria, viruses, biotoxins) as well as pathogens in special settings such as the food supply. Content will include

biological properties, transmission and epidemiology, pathogenic mechanisms, diagnosis, control and management. Antimicrobial therapy and vaccines will also be covered.

SWMD 614 Advanced Chemical Terrorism for Law Enforcement 3cr.

This course will address a variety of toxic syndromes likely to be encountered following exposures to Toxic Industrial Chemicals (TICs) and Toxic Industrial Material (TIMs) and other chemical agents of opportunity. In recent years, there has been growing concern that many of the most likely threats of chemical terrorism involve so-called “agents of opportunity.” Both common and unusual industrial agents may pose a considerable threat as potential terrorist weapons. While an understanding of the traditional military chemical weapons (e.g. nerve agents) remains essential, an appreciation of the myriad of other potential toxic chemicals readily available in our society is crucial if we are to optimally prepare, identify and defend against chemical threats. This course will utilize a symptom-based clinical approach to describe the medical impact of various chemical poisons. The course will provide a framework to enhance recognition of the common health effects of apparently disparate chemical toxins, describe the risk, and introduce clinical and public health management strategies.

SWMD 618 Design and Evaluation of Critical Asset Protection Systems 3cr.

This course provides an in-depth examination of Critical Asset Vulnerability and Risk Assessment – Performance-Based Evaluation Methodologies (CAVRA-PBEM) and how they are applied to protection systems. It is designed to educate students about the process of identifying potential vulnerabilities in protection systems, quantitatively assessing their risk of failure and then minimizing this risk, and quantitatively re-assessing the remaining risk. This process is widely applicable to any number of potential threats. The focus of this course is on the protection system itself, and the design of a number of different types of protection systems will be discussed (e.g., alarms, interior intrusion sensors, access control, etc.).

SWMD 698 Directed Readings in Strategic Studies in WMD 3cr.

This is a seminar-based course conducted with faculty supervision and participation. Students will read at least six major works on the topic of the course and discuss them in class.

SWMD 791 Synthesis Project in Strategic Studies in WMD 3cr.

This course will provide each student with an opportunity to write a substantial research paper that is a synthesis of theory, research, and policy in Strategic Studies in WMD. This course will be taken during the student’s final semester in the program, unless exceptional circumstances exist. The development of a substantial paper and oral presentation will be the required end products of this course.

THTR: Theater

Department of Theater and Dance
College of Fine Arts

THTR 586 Practicum in Production 1-6 cr.

An opportunity with academic credit for students to make significant contributions to campus productions augmenting theater course work in the areas of assistant directing or directing, stage management, technical direction, sound design, lighting, costuming, scene design, properties and

set decoration, scene building, and painting and make-up design. May be repeated for a maximum of six credits. Prerequisite: Permission.

THTR 693 Internship 1-12 cr.

Supervised working experience in the context of a professional theater environment in a company employing professional actors, directors, and/or designers. Prerequisite: Permission.

VOED: Vocational Education

Center for Career and Technical Personnel Preparation
College of Education and Communications

BTED/VOED 600 Curriculum Development in Career and Technical Education 3 cr.

Emphasis is on processes for making curriculum decisions and guiding others in developing and updating curriculum for career and technical education. Current occupational standards and societal needs, as well as state and federal regulations governing career and technical education, are used as a basis for curriculum decisions.

BTED/VOED 601 Curriculum and Instructional Leadership in Career and Technical Education

3 cr.

Curriculum management skills are developed and utilized to plan and organize career and technical educational curriculum. Focus is on practical curriculum decisions when they involve guiding other staff in curriculum development for career and technical education.

BTED/VOED 602 Conference Leadership and Communication Methods in Career and Technical Education 3 cr.

Basic concepts in supervision of career and technical education programs are reviewed. Human relations, communications, processes, decision making, helping conferences, and leadership strategies are emphasized. Students demonstrate ability to perform supervisory skills in an individualized manner in an actual career and technical school situation supplemented by seminars.

BTED/VOED 603 Management of Instruction for Career and Technical Education 3 cr.

Classroom instructional tasks performed by the career and technical educator are studies, including procedures, materials, and learning and instructional styles. Emphasis is on leadership strategies and processes to guide and assist other career and technical instructors. Skills are developed in an individualized, self-paced manner in an actual career and technical school situation supplemented by seminars.

BTED/VOED 604 Curriculum Supervision in Career and Technical Education 3 cr.

Emphasizes skills needed to provide leadership in supervision of faculty and staff. In consultation with his or her advisor, each student identifies areas that need enhancement in career and technical education settings. Skills are developed in an individualized, self-paced manner in an actual career and technical school situation supplemented by seminars.

BTED/VOED 605 Policy Administration 3 cr.

Develops skills to communicate career and technical school policies and activities effectively with staff, students, and community. Includes study of student recruitment for career and technical programs and maintenance/expansion/utilization of school facilities. In consultation with his or her advisor, each student will identify those areas that need further refinement. The student will develop and perform each requisite skill in an individualized, self-paced manner in an actual career and technical school situation supplemented by seminars.

BTED/VOED 606 Leadership for Career and Technical Educators 3 cr.

Provides a broad overview of educational leadership in secondary public school settings, including leadership styles; staff selection, evaluation, and supervision; and team building. Also includes principles of curriculum development, instructional scheduling, and instructional technology, teaching skills, and learning theories.

BTED/VOED 607 Organizations and Structure for Career and Technical Education 3 cr.

Provides a broad overview of current issues faced by school and district leaders, including the need to effectively communicate with parents, staff, students, community leaders, and community members from diverse backgrounds. Also includes principles of schools as organizations, the nature of administrative work, leadership and the change process, and current issues facing schools.

BTED/VOED 608 Legal and Legislative Issues in Career and Technical Education 3 cr.

Provides an understanding of the current legal and legislative issues that exist in the implementation of career and technical education.