

INDIANA UNIVERSITY OF PENNSYLVANIA
GRADUATE CATALOG
2021-2022

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University Policies

Student Rights

- Student Rights and Responsibilities

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.

Policies

- Affirmative Action
- Anti-Hazing Policy
- Bereavement-Related Class Absence Policy
- Email Communication Policy
- Inclement Weather Policy and Procedures
- Indoor Vaping Policy
- IUP Civility Statement
- IT Acceptable Use Policy
- Students Rights under the Family Educational Rights and Privacy Act (FERPA)
- Sexual Discrimination and Sexual Misconduct Policy
- Semester Course Syllabi University Policy

- Services for Students with Disabilities
- Student Rights/Directory Information
- Title IX Reporting
- Reporting an Incident of Concern
- Unmanned Aerial System (UAS)

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.

Anti-Hazing Policy

The university prohibits hazing. The Anti-Hazing Policy applies to acts conducted on or off campus if such acts are deemed to constitute hazing under the policy or Pennsylvania law. Hazing is dangerous and detrimental to the health and safety of the entire community, degrades the values of the involved organization, and creates an environment of disrespect that contradicts the University's commitment to civility. To read the policy in its entirety, visit www.iup.edu/studentsupportandstandards. The policy is managed by the Office of Student Support and Community Standards, G37 Ruddock Hall, 724-357-1264, community-standards@iup.edu.

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.

Email 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.

Inclement Weather Policy and Procedures

- Closure of the University
- Reopening of the University
- Cancellation of IUP-Sponsored Activities or Events in the Absence of University Closure
- Definitions
- Responsibilities
- General Process
- Natural Disasters-Environmental Conditions
- For Class Cancellation
- For University Closing
- For Canceling or Postponing IUP-Sponsored or Hosted Activities or Events
- Process and Responsibilities
- Inclement Weather/Environmental Factors Communication Plan

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 use available leave and follow departmental practices for reporting.

- Cancellation of classes does not necessarily mean that the University is closed. Any class cancellations will apply to all University locations unless otherwise specified. Faculty members with teaching responsibilities will be expected to make up time for canceled classes.
- Class cancellation does not imply that there is no class assignment for that day. Students are instructed to check their University email for readings or assignments that can be completed through electronic means. While faculty may make up lost class time as they choose, they are encouraged to provide alternate online assignments.

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 email 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?*

Indoor Vaping Policy

Indiana University of Pennsylvania is a leading public, doctoral/research University, strongly committed to the health and safety of the University community.

The University bans the use of any and all electronic cigarettes, e-cigarettes, vaping products, and any other device which may cause a smoke, vapor, or other matter which may be inhaled by the user and/or bystander in all indoor areas on all Indiana University of Pennsylvania campuses, programming spaces, affiliated areas, and Student Cooperative Association property.

This policy applies to all students, faculty, staff, visitors, and vendors of the University.

Violations of this policy may be resolved through the appropriate offices:

1. Report violations by students to:
The Office of Student Support and Community Standards
724-357-1264
community-standards@iup.edu
<https://www.iup.edu/studentsupportandstandards/>
2. Report violations by faculty and staff to:
The Office of Human Resources
724-357-2431
human-resources@iup.edu
iup.edu/humanresources

IUP 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.

IT Acceptable Use Policy

Purpose: This policy addresses the use of information technology resources (IT resources) at Indiana University of Pennsylvania ("the university"). IT resources are intended to support the university's instructional, research, and administrative operations.

Scope: This policy applies to all users of IT resources owned or operated by Indiana University of Pennsylvania. Users include students, faculty, staff, contractors, and guest users of computer network resources, equipment, or connecting resources.

Objective: The objective of this policy is to create a framework to ensure that IT resources are used in an appropriate fashion and support the university's mission and institutional goals.

Policy: Use of the university's IT resources is a privilege and signifies agreement to comply with this policy. Users are expected to act responsibly and follow the university's policies and any applicable laws related to the use of IT resources. This policy provides regulations to ensure IT resources are allocated effectively.

While the university recognizes the role of privacy in an institution of higher learning and will endeavor to honor that ideal, there should be no expectation of privacy of information stored on or sent through university-owned IT resources, except as required by law. For example, the university may be required to provide information stored in IT resources to someone other than the user as a result of court order, investigatory process, or in response to a request authorized under Pennsylvania's Right-to-Know statute (65 P.S. §67.101 et seq.). Information stored by the university may also be viewed by technical staff working to resolve technical issues.

Definitions: For the purposes of the IUP Acceptable Use of IT Resources Policy (AUP), IT resources include the University computer network, all University-owned devices and all University provided software systems regardless of what computer network is being used. This is inclusive of all content transmitted over the University computer network by any device regardless of ownership.

The National Institute of Standards and Technology (NIST) defines Personally Identifiable Information (PII) as any information about an individual, including (1) any information that can be used to distinguish or trace an individual's identity, such as name, social security number, date and place of birth, mother's maiden name, or biometric medical, educational, financial, and employment information.

Responsibilities of Users of IT Resources:

- Respect the intellectual property of authors, contributors, and publishers in all media.
- Protect user identification, password information, and the system from unauthorized use.
- Adhere to the terms of software licenses and other contracts. Persons loading software on any university computer must adhere to all licensing requirements for the software. Except where allowed by university site licenses, the copying of university-licensed software for personal use is a violation of this policy.
- Comply with federal, state, and local laws, relevant university personal conduct regulations, and the terms and conditions of applicable collective bargaining agreements. Applicable laws include, but are not limited to, those regulating copyright infringement, copyright fair use, libel, slander, and harassment.
- Become acquainted with laws, licensing, contracts, and university policies and regulations applicable to the appropriate use of IT resources. Users are expected to use good judgment and exercise civility at all times when utilizing IT resources and respect the large, diverse community utilizing these resources in a shared manner.
- Understand the appropriate use of assigned IT resources, including the computer, network address or port, software, and hardware.
- Comply with the university's Use of E-mail as an Official Means of Communication Policy. Electronic mail should never be considered an appropriate tool for confidential communication. Messages can be forwarded or printed, and some users permit others to review their e-mail accounts. Message content can be revealed as part of legal proceedings. Finally, messages are

sometimes not successfully delivered due to a technical issue requiring authorized IT personnel to review message content as part of the troubleshooting process.

- Protect Personally Identifiable Information (PII) on IUP's network by only storing sensitive information when necessary on university drives, and adhering to best practices for the proper storage.
- Adhere to the Portable Storage Device Procedure.

Prohibited Uses of IT Resources:

- Providing false or misleading information to obtain or use a university computing account or other IT resources
- Unauthorized use of another user's account and attempting to capture or guess passwords of another user
- Attempting to gain or gaining unauthorized access to IT resources or to the files of another user. Attempting to access restricted portions of the network, an operating system, security software, or other administrative applications without authorization by the system owner or administrator
- Interfering with the normal operation, proper functioning, security mechanisms, or integrity of IT resources
- Use of IT resources to transmit abusive, threatening, or harassing material or other communications prohibited by law
- Copyright infringement, including illegal sharing of video, audio, software, or data
- Excessive use that overburdens or degrades the performance of IT resources to the exclusion of other users. This includes activities which unfairly deprive other users of access to IT resources or which impose a burden on the university. Users must be considerate when utilizing IT resources. The university reserves the right to set limits on a user through quotas, time limits, and/or other mechanisms.
- Intentionally or knowingly installing, executing, or providing to another a program or file on any of the IT resources that could result in damage to any file, system, or network. This includes, but is not limited to, computer viruses, trojan horses, worms, spyware, or other malicious programs or files.

Procedures: Violations of this policy will be reported to appropriate levels of administrative oversight, depending on the statutes and policies violated. Suspected violations of federal and state statutes and local ordinances shall be reported to the director of Public Safety (chief of campus police) for official action.

Nonstatutory violations of the Acceptable Use Policy, such as "excessive use," may be reported to the chief information officer, the associate vice president for Human Resources, the Office of Student Support and Community Standards, and/or the director of Public Safety (chief of campus police).

A university employee or student who violates this policy risks a range of sanctions imposed by relevant university disciplinary processes, including denial of access to any or all IT resources. He or she also risks referral for prosecution under applicable local, state, or federal laws.

The University Senate-via the Library and Educational Services Committee-is responsible for recommending the university's Acceptable Use Policy. Questions regarding the applicability, violation of the policy, or appropriate access to information should be referred to the chief information officer.

Portable Storage Device Procedure

This procedure is a specific extension of the IUP Acceptable Use of Information Technology Resources Policy. As such, the Senate Library and Educational Services Committee (LESC) is responsible for recommending changes to the procedure.

The use of portable electronic storage devices with IT Services-managed desktops and laptops is permitted. These devices include flash drives, memory sticks, data disks, etc. The university reserves the right to conduct security scans on portable storage devices connected to the network.

Users are strongly encouraged to store only non-sensitive data on these devices. When sensitive data is stored, IT Services encourages the use of data encryption. Users can submit an ihelp ticket to obtain data encryption assistance.

The university is not responsible for backing up data stored on these devices. As these devices are susceptible to loss, theft, data corruption or damage, users are strongly encouraged to back up the data to a non-portable storage device. The university is not liable for any data loss on these devices.

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.

Sexual Discrimination and Sexual Misconduct Policy

The university is committed to providing a safe and positive living, learning, and work environment that is free from sexual discrimination and other prohibited sexual misconduct. Students, employees, and university affiliates are expected to conduct themselves in a manner that does not infringe upon the rights of others. The Sexual Discrimination/Misconduct Policy provides detailed definitions, reporting guidelines, and complaint resolution procedures. It can be found at <https://www.iup.edu/social-equity/policies/sexual-discrimination-and-sexual-misconduct/>.

The policy is applicable to all students and employees of the university, as well as designated volunteers, contractors, and vendors. Sexual discrimination and misconduct include: sexual harassment, nonconsensual sexual contact, non-consensual sexual intercourse, sexual exploitation, and retaliation. Resources and support services are available to the university community. Visit Title IX Reporting for more information. The Social Equity and Title IX Office can be reached at 724-357-3402, social-equity@iup.edu, title-ix@iup.edu, or in B-17 Delaney Hall.

Semester Course Syllabi University Policy

A syllabus is a document that specifies the expectations and requirements of a given course and protects the interests of faculty and students.

Each course instructor shall distribute a course syllabus, without charge, to each student by the first day of the course. The syllabus may be distributed in hard copy or electronic formats. The syllabus will be consistent with the course content and catalog description approved by the University Senate.

Each syllabus shall contain the following, unless otherwise noted:

1. Instructor Contact Information

- Name and office location
- IUP e-mail address
- Office phone, if available
- Schedule of office hours. Note: Full time faculty must maintain a minimum of five office hours per week spread across three days. For online courses, the method and times for instructor availability to consult with students must be included.

2. Course Information

- Title, number, and section of the course
- Meeting times and building/room location
- Catalog or course description
- Prerequisites, as appropriate
- Learning objectives, specific to discipline or department.

3. Course Materials

- Required book(s) with title, author, edition, and ISBN
- Other required materials, technologies, or software to be purchased or made available to students
- A list of readings, as appropriate
- Information on learning management systems and delivery modes (e.g., D2L, Moodle, Zoom), as appropriate.

4. Course Requirements

- Outline of topics
- Description of course assignments and dates for major assignments and tests
- Listed culminating activity, such as a final examination. Note: Each course shall have a culminating activity given during the scheduled final examination period.

5. Grading Information

- Description and listing of the grading components (e.g., quiz, midterm, final examination, term papers, homework, class participation, etc.) and the relative contributions of assignments/activities/participation to the final grade
- Description of the grading scale.

6. Course Policies and Statements

Syllabi *shall* contain the following policies and statements:

- Policy on course attendance. The policy must be consistent with IUP's policies on Undergraduate and Graduate Course Attendance, Bereavement-related Class Absences, and Anticipated Class

Absence for University Representation and Participation, available at <https://www.iup.edu/registrar/catalog/>

- Policy on class disruption, consistent with IUP Undergraduate and Graduate Policies on Class Disruption available at <https://www.iup.edu/registrar/catalog/>
- Complete text on Title IX and Protection of Minors Compliance required by the Board of Governors of the State System of Higher Education, available at <https://www.iup.edu/social-equity/policies/title-ix/>
- Statement on academic integrity, consistent with IUP Undergraduate and Graduate Policies on Academic Integrity, available at <https://www.iup.edu/registrar/catalog/>
- Statement on accommodations for students with disabilities, consistent with IUP's mission and vision on Accommodations for Students with Disabilities, available at www.iup.edu/disabilitysupport.

Syllabi *should* contain the following policies and statements as best practices:

- Policy on student participation. The policy should include language regarding what constitutes participation and how participation or lack of participation may impact the student's grade.
- Policy, including penalties if appropriate, on make-up exams and late submission of assignments.
- Statement that IUP email is IUP's official means of communicating with the student during the course.
- The following statement on use of plagiarism detection services: "IUP is committed to the fundamental values of academic integrity. Academic integrity means honesty and responsibility in scholarly endeavors and behaviors; it means that academic work must be the result of an individual's own effort. To assist instructors in detecting plagiarism, and to protect students from plagiarism, your written work may be submitted to a detection service that reviews submitted material for originality of content."
- Additional instructor policies as appropriate.

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 the Social Equity and Title IX Office.

Delaney Hall, Suite B17
920 Grant Street

Indiana, PA 15705
Telephone: 724-357-3402

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:

Social Equity and Title IX Office
Delaney Hall, Suite B17
920 Grant Street
Indiana, PA 15705
Telephone: 724-357-3402

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:

Chief Diversity and Inclusion Officer and Title IX Coordinator

ADA/Section 504 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/.

Statement of Non-Discrimination

Indiana University of Pennsylvania is committed to equal opportunity and affirmative action for its students, employees, and applicants. The university is committed to providing equal educational and employment rights to all persons without regard to race, color, sex, religion, national origin, sexual orientation, age, disability, or veteran's status. Each member of the university community has a right to study and work in an environment free from any form of racial, ethnic, and sexual discrimination. In accordance with federal and state laws, the university will not tolerate racial or ethnic discrimination or discrimination on the basis of disability.

This policy is placed in this document in accordance with state and federal 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 applicable federal and state executive orders. This policy extends to disabled veterans and veterans of the Vietnam era.

Unmanned Aerial System (UAS)

UAS may be operated on University property for academic, research or public safety activities in accordance with federal, state and local laws and regulations and University policies. Operation of UAS on University property must be approved by the Department of Public Safety (DPS). Recreational or personal use of UAS on University property is prohibited, even if such use is a permitted "hobby" use under state or federal laws and regulations.

University departments or employees wishing to fly UAS for University-related purposes off University property must have appropriate permits and property owner permission for the location of the flight. They must also comply with any federal, state, and local laws and regulations of the jurisdiction where the UAS flight is conducted.

Requests for UAS operations on University property must be submitted to the DPS at least five business days prior to the date of anticipated flight. If approved, UAS operators are then required to confirm they will be flying as scheduled by notifying the DPS at (724) 357.2141 at least one hour before flight operations. Departments that are frequent users of UAS may acquire a standing authorization to fly from the DPS; however, the DPS must still de-conflict requests for flight operations with any other known event(s) or other issues and notification must still be made to DPS within one hour of flight time.

Users of UAS may be asked to stop the UAS flight or leave University property if they do not comply with this policy or are otherwise engaging in conduct that is considered harmful or dangerous to the University or persons on University property.

Indoor use of UAS in campus buildings is limited to locations and times where the use will not interfere

with use of the facility. Operators may be held responsible for interfering with academics or other authorized activities if the UAS is flown indoors in an unsafe manner or in violation of this policy.

Any individual or organization found to be operating an UAS on University property or at a University-sponsored event in violation of approved status or any federal, state or local laws or regulations, or in violation of applicable University policies, may be directed by an authorized University official to immediately cease operation of the UAS. Violations may be referred to a University disciplinary process (student conduct or employee) and may be considered regarding future UAS authorization requests.

Use of UAS by the DPS will require compliance with this policy during normal operations; however, in an emergency, DPS will follow internal Department protocols. NOTE: "Emergency," in this context, will use the same definition as referenced under the "SCOPE" section of the IUP Emergency Operations Plan. Declaration of an emergency will be handled according to the IUP Emergency Operations Plan, Functional Annex A: Emergency or Disaster Declaration. As such, waiver of the UAS policy for a DPS operational exemption will be made by the President of IUP or designee.

Responsibilities:

A. The Department of Public Safety (DPS) will:

- I. Publish University protocols specifically related to scheduling flights and acquiring authorization to operate UAS according to federal, state, and local laws and regulations on its website.
- II. Evaluate requests for operation of UAS on University property in accordance with any public safety related concerns for specific flight requests and de-conflict special event operations.
- III. Record flight notifications and all relevant flight information in the DPS records management system.
- IV. Investigate reports of UAS-involved property damage, personal injury, privacy concerns or other matters with proper notification and/or deferral to outside agencies as appropriate.
- V. Make referrals of violations of this policy and applicable federal, state and local laws and regulations, as appropriate.
- VI. Make notification of UAS flights to Facilities Management or other public safety agencies or entities of UAS flights, as appropriate.
- VII. Provide statements or letters of University self-insurance, as appropriate, for operation of UAS at off-campus venues.

B. UAS Operators will:

- I. Comply with federal, state, and local laws and regulations for operation of a UAS.
- II. Comply with University policy and flight protocols before operation of on University property.
- III. Be responsible for all pre-flight safety checks, maintenance and upkeep of aircraft.
- IV. Not use a UAS to monitor or record activities where there is a reasonable expectation of privacy. This includes but is not limited to: restrooms, locker rooms, residence halls, events involving minors, child care facilities and health/medical facilities.

- V. Not use a UAS to observe or record campus events or performances (without authorization), or for any unlawful purpose.
- VI. Not fly over people (Note: this severely limits UAS flights on University property)
- VII. Not fly above 400 ft.
- VIII. Not fly outside daytime hours, defined as 30 minutes before official sunrise to 30 minutes after official sunset
- IX. Not fly in an unsafe manner
- X. Not fly beyond the operator's ability to see the UAS
- XI. Not fly while under the influence of alcohol or drugs
- XII. Not fly in a manner that interferes with air traffic
- XIII. Not fly close to another UAS or other objects so as to create a collision hazard

Related Website:

Additional information regarding the FAA's UAS program and links to the federal laws and regulations: <http://www.faa.gov/uas/>

School of Graduate Studies & Research Policies

- Academic Advising
- Academic Credits and Student Status
- Academic Good Standing
- Academic Integrity Policy
- Admission Classifications
- Advisement
- Bereavement-Related Class Absence Policy
- Classroom Disruption Policy
- Comprehensive/Candidacy Examinations
- Continuous Graduate Registration for Dissertation and Thesis
- Course Attendance Policy
- Course Auditing
- Course Deactivation Policy
- Course Deletion Policy
- Course Numbering
- Course Overlap in Degree Programs
- Course Repeat Policy
- Course Withdrawal Policy
- Credit Requirement
- Early Admission to Graduate Program Policy
- Enrolled Students Called to Active Military Service
- Finalizing the Dissertation/Thesis
- Grade Appeal Policy
- Grading System
- Graduate Course Scheduling by Undergraduates
- Graduate Fresh Start Policy
- Graduate Residency Requirements
- Incomplete
- Independent Study
- Internship Policy
- Leave of Absence Policy
- Military Graduate Credits and Experience Policy
- Prior Learning Assessment (PLA) for Academic Credit
- Program Changes
- Program Level Exams Appeal Policy

- Degree Candidacy
- Dissertation
- Dissertation/Thesis Approval Process
- Dissertation/Thesis Committee
- Dual Enrollment in Graduate Program
- Dual Level Courses
- Final Exam Policy
- Grade Change Policy
- Provisional Admission for International Graduate Applicants
- Research Misconduct Policy
- Schedule Adjustment and Drop/Add Policy
- Special Credits Policy
- Teaching Associates
- Time Limitations
- Time-to-Degree Extension for Master's Thesis and Doctoral Dissertation
- Time-to-Degree Masters/Doctoral Dismissal Appeal Policy
- Total University Withdrawal
- Transfer Credit Policy
- Transfer Credits for Certificates
- Withdrawal Policies

Academic Advising

All students are assigned a faculty member who serves as their academic advisor when they start at IUP. Students may have the same advisor from year to year or their advisor may change based on their class standing, specialty areas, or career goals.

Faculty members advise students on a variety of areas, such as degree progress and curriculum, academic success, course registration, add/drop, changing majors, student activities, study skills, and career options. Faculty should maintain regular contact with their advisees.

Students may find out who their advisor is by signing in to MyIUP (*my.iup.edu*), selecting the "Academics" page, and then scrolling down to the "My Advisor" section. Students should initiate contact with their advisor. Questions about advisor assignments should be directed to the chairperson of the department.

While faculty advise students on a variety of areas, students are ultimately responsible for knowing and fulfilling their major, college, and university requirements for graduation.

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. 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

Students who fall below good standing are placed on probation for their next active 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.

Graduate students earning final grades of "F" and a 0.00 CGPA at the end of their first semester of enrollment will be dismissed from the University, except for graduate students enrolled in only one course (up to 4 credits), who may be placed on probation at the discretion of the SGSR Academic Standards officer.

Academic Integrity Policy

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, instructors/administrators, 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
- Referrals for Alleged Violations
- Conduct of Proceedings
- Resolution by Documented Agreement with the Instructor/Administrator
- Resolution by Formal Adjudication
- Sanctions
- Operational Notes

A. 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.

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.
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 also includes, among other things, using the same paper or work more than once without authorization of the instructor/administrator to whom the work is being submitted.
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.
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 Support and Community Standards website (www.iup.edu/studentconduct).

6. **Facilitating Academic Integrity Violations:** Facilitating academic integrity violations include 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 experiences.
9. **Noncompliance:** Noncompliant behavior includes failure to fulfill any sanction levied as a result of an academic integrity proceeding.

B. Referrals for Alleged Violation

Charges of academic integrity violations may be brought by an instructor/administrator. Students who observe or become aware of a violation of academic integrity by another student are strongly encouraged to report it to an instructor/ administrator.

If, after reviewing the referral, the Office of the Provost determines the alleged behavior needs to be referred to another office, the Office of the Provost will share all pertinent information with the appropriate office.

C. Conduct of Proceedings

1. If charges are brought, an accused student shall have an opportunity to answer, explain, and defend themselves against the charges in accordance with the procedures below.
2. The university shall have the burden of proof of establishing violations based on evidence to make a reasonable person believe a fact sought to be proved is more likely true than not.
3. All formal records pertaining to academic integrity will remain confidential to the greatest extent possible.
4. All references to days in this policy refer to calendar days.
5. Sequential processing of an alleged academic integrity violation through the following resolution processes is not required.

D. Resolution by Documented Agreement with the Instructor/Administrator

1. If the instructor/administrator does not believe that the violation is so severe that it warrants sanctions such as disciplinary probation, involuntary withdrawal from part of IUP's academic or other programs, suspension, expulsion, or rescission of a conferred degree, the instructor/administrator may seek to resolve the matter by Documented Agreement. (Note: If the faculty member/administrator does believe that the violation is so severe that it warrants

sanctions such as disciplinary probation, involuntary withdrawal from part of IUP's academic or other programs, suspension, expulsion, or rescission of a conferred degree, the faculty member/administrator may seek to resolve the matter directly through formal adjudication, such as Hearing by Department Chair or Hearing by AIB)).

The instructor/administrator will schedule a timely formal conference with the student to reach a mutually agreeable resolution. This conference should be requested within ten (10) days of the observation or discovery of the alleged violation absent unusual circumstances. Absent unusual circumstances, a conference should be held within ten (10) days of request, an agreement should be reached within ten (10) days of conference, and if no agreement is reached within ten (10) days of conference, the alleged violation will be resolved through formal adjudication. If the violation pertains to work being judged or that has been judged by a committee such as a thesis or comprehensive examination, the conference must involve a majority of the committee.

2. If an agreement is reached, a Documented Agreement Referral form available online through MYIUP and at <https://www.iup.edu/academicaffairs/for-faculty/academicintegrity/> must be completed and acknowledged in writing by all required parties within ten (10) days of the conference. Electronic copies of the form must be distributed to all signatories to the agreement and Office of the Provost. If the violation pertains to work being judged or that has been judged by a committee such as a thesis or comprehensive examination, the Documented Agreement Referral form must be agreed to by a majority of the committee and the student. In all other cases, the instructor/administrator and student must acknowledge the agreement.

3. 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 terms of the Documented Agreement, the instructor/administrator may file an academic integrity referral against the student for noncompliance within ten (10) days of discovery of said failure.

4. If the parties are unsuccessful at reaching a Documented Agreement, the instructor/administrator/student will pursue formal adjudication. The student will have input as to the path for formal adjudication (i.e., Hearing by Department Chair or Hearing by AIB).

E. Resolution by Formal Adjudication

Formal adjudication will be pursued if:

- The instructor/administrator and student are unable to reach a Resolution by Documented Agreement;
- The instructor/administrator believes that the violation is so severe that it warrants a sanction that includes disciplinary probation, involuntary withdrawal from part of IUP's academic or other programs, suspension, expulsion, or rescission of a conferred degree (Note: in this instance, an instructor/administrator does not have to initiate resolution of the alleged violation first through Documented Agreement); and/or
- A student desires formal adjudication and not a Documented Agreement to resolve the alleged academic integrity violation.

A formal adjudication is initiated by the instructor/administrator filing an Academic Integrity Referral form and may take the form of a hearing by the Department Chair and/or a hearing conducted by an Academic Integrity Board (AIB). If the student desires formal adjudication, the faculty member/administrator will initiate a formal adjudication by filling out an Academic Integrity Form indicating the student's request and path for adjudication. If there is no indication of which formal adjudication path has been requested, the Office of the Provost will initiate discussion with the student regarding preferred path.

1. Hearing by Department Chair

a. The instructor/administrator and the student may agree to have the matter adjudicated by a Hearing by Department Chair. The Academic Integrity Referral form should include a statement the parties agree to have the matter adjudicated by a Hearing by Department Chair and should be filed within ten (10) days of the parties' failure to reach a resolution through Documented Agreement. A copy of the Academic Integrity Referral form will be sent to the referring party and the student.

b. If the instructor/administrator had decided to take the matter directly to a Hearing by Department Chair due to the seriousness of the alleged violations without first using the Documented Agreement process, the faculty member/administrator will complete the Academic Integrity Referral form and forward it to the Department Chair. A copy of the Academic Integrity Referral form will be sent to the referring party and the student.

c. Despite the wishes of the referring party and the student, the matter may be referred directly to an AIB if:

- The Department Chair believes the circumstances and the severity of the alleged would result in a recommended sanction of suspension, expulsion or rescission of degree if true or if the Department Chair otherwise believes the violation warrants Hearing by AIB; or
- The Department Chair feels he/she is unable to provide an unbiased/impartial opportunity for a hearing.

d. If the Department Chair elects to send the violation directly to the AIB, the Department Chair should forward the Academic Integrity Referral form to the Office of the Provost within ten (10) days of receiving the form from the instructor/administrator.

e. The Department Chair will schedule a hearing within ten (10) days of receipt of the referral absent extenuating circumstances. The student accused must be given at least three (3) days advance written notice of the hearing to allow the student a reasonable time to prepare a defense. The student may waive this notice requirement.

f. The student and the instructor/administrator must be given the opportunity to submit and review written, physical, and testimonial evidence and to question witnesses at the hearing.

g. The student and instructor/administrator have the right to bring an advisor to the hearing. Advisors may only consult privately with the faculty member/administrator or student.

h. Following the hearing, the Department Chair will render a determination based on the information presented at the hearing. Within ten (10) days of the hearing, absent extenuating circumstances, the Department Chair will send a written report of the hearing to the Office of the Provost with copies to the instructor/administrator and the student summarizing the outcome, the factual basis for the determination reached, and if a violation is found, recommending sanctions to be imposed and appeal procedures.

i. If the sanctions include suspension, expulsion, or rescission of a degree, the matter will be referred to the Provost/designee for review.

j. The student has the right to appeal the Department Chair's decision and/or sanctions through the Office of the Provost as outlined in the appeal procedure.

2. **Hearing by Academic Integrity Board**

a. A hearing before the AIB will occur if:

- The instructor/administrator feels the alleged violation is egregious enough to warrant sanctions including suspension or expulsion.
- The instructor/administrator and the student do not agree to have the matter adjudicated by a Hearing by Department Chair;
- The Department Chair refers the matter to an AIB without conducting a hearing; or
- The student has previous violations on record. In this case, the AIB will determine if additional sanctioning is warranted due to multiple academic integrity violations.

b. The AIB will schedule a hearing within ten (10) days of receipt of the referral absent extenuating circumstances to allow the student a reasonable time to prepare a defense. The student accused must be given at least three (3) days advance written notice of the hearing to allow the student a reasonable time to prepare a defense. The student may waive this notice requirement.

c. The student and the instructor/administrator must be given the opportunity to submit and review written, physical, and testimonial evidence and to question witnesses at the hearing.

d. The student and instructor/administrator have the right to bring an advisor to the hearing or the review. Advisors may only consult privately with the instructor/administrator or student.

e. Following a hearing, the AIB will render a determination based on the information presented at the hearing. Within ten (10) days of the hearing, absent extenuating circumstances, the chair will send a written report of the hearing to the Office of the Provost with copies to the instructor/administrator and the student summarizing the outcome, the factual basis for the determination reached, and if a violation is found, sanctions to be imposed and appeal procedures.

f. If the sanctions include suspension, expulsion, or rescission of a degree, the matter will be referred to the Provost/designee for review.

g. The student has the right to appeal the AIB's decision and/or sanctions.

3. Composition of an AIB

a. For undergraduate hearings and reviews, an AIB will be made up of four (4) instructors and two (2) undergraduate students. All members, including the chair, are voting members.

b. For graduate-level hearings and reviews involving undergraduate students taking graduate level courses, please refer to the Graduate School's policy on AIB composition.

c. For any case heard or reviewed, at least four AIB members must be available, at least one of whom must be a student, preferably an undergraduate student if the accused is an undergraduate student. A instructor will chair all hearings and reviews.

d. Selection of members to a specific AIB will avoid conflicts of interest with the student (e.g., AIB members being from the student's department). A board member may recuse themselves or be recused upon the request of the accused student/referring party if there is a perceived conflict of interest.

F. Sanctions

1. Sanctions Imposed through Documented Agreement

The following sanctions may be agreed upon by the student and instructor/administrator through Documented Agreement and can be faculty/administrator imposed. All grade reductions require the approval of the instructor of record. If the work is graded by a committee, a grade reduction requires the 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 students to examine their dishonest behavior and that may benefit the student, campus, or community.

d. **Letter of Reprimand:** A reprimand 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 as a subsequent offense. The letter of reprimand will remain in effect for the period of time specified by the individual or board hearing the case.

e. **Other:** Sanctions deemed appropriate and tailored to a specific violation as agreed to by the student and instructor/administrator.

2. **Sanctions Imposed through Formal Adjudication**

In addition to the above, the following sanctions may result from a Hearing by Department Chair and/or AIB.

a. **Disciplinary Probation:** Disciplinary probation, which is for the 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, which may include involuntary withdrawal from part of IUP's academic or other programs, suspension, or expulsion from the university.

b. **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.

c. **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 students remove themselves from university premises, not attend classes or social activities, and not be present on university property (including residence halls) or Student Cooperative Association property during the period of suspension.

d. **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.

e. **Rescission of a Degree:** Students may have their degree rescinded if found to have plagiarized or not to have conducted their research on their thesis.

f. Sanctions of expulsion and/or rescission of a degree can be recommended by a Department Chair or AIB but can only be imposed by the President/designee. A sanction of suspension can be imposed by the Provost/designee.

3. **Previous Violations** - Information about prior violations will not be used to determine whether a student violated the policy in the current case. Information on prior violations will only be used in determining the appropriate sanction. Students with multiple academic integrity violations on record may be subject to additional sanctions, including suspension or expulsion from the university. A student who has had previous violations on record will be heard by an AIB to determine if additional sanctioning is warranted.

G. Appeal Procedures

1. Written appeals of a Department Chair's or AIB's hearing decision or sanction may be filed by a student within ten (10) days of receiving the report and are limited to the following grounds:
 - Denial of a fair and reasonable hearing (e.g., procedural errors that likely impacted hearing outcome)
 - New evidence (applies when there is an acceptable reason why the information was not presented at the original hearing)
 - Excessively harsh sanctions.
2. All appeals of expulsion or degree rescission must be submitted to the Office of the President. All other appeals must be submitted to the Office of the Provost.
3. The ten (10) day requirement may be waived where extenuating circumstances prevail and only if the grounds for appeal are met.
4. The person submitting the appeal must include in the written appeal the reason(s) for the appeal, the supporting facts, and the requested solution. Appeals will not be accepted by third parties on behalf of the party appealing the decision. The appeal must include the signature of the person submitting the appeal. An appeal is not a rehearing of the matter and will not have merit simply because the person submitting the appeal disagrees with the outcome.
5. In the case of an appeal of expulsion or degree rescission, the Provost/designee, or the President/designee in the case of an appeal of expulsion or degree rescission, will issue a decision on all appeals from an AIB report or review within ten (10) days absent extenuating circumstances. The appeal may be sustained, denied, sanctions may be modified, or the matter may be referred for a new hearing.
6. For all appeals other than expulsion or degree rescission, the Provost/designee will issue a final decision within ten (10) days absent extenuating circumstances.
7. Appeals may be sustained, denied, sanctions may be modified, or the matter may be referred for a new hearing.

H. Operational Notes

1. In cases where a violation is alleged at, or near, the end of the semester and resolution by Documented Agreement or Formal Adjudication cannot be completed before grades are submitted, the instructor should submit a grade of "Incomplete" (I) for the student. The instructor must initiate formal notification of an academic integrity violation to the student. The "I" grade will remain on the student's record until the case has been resolved. Once the case has been resolved, the "I" grade will be replaced with the appropriate grade.
2. If the violation is alleged during the semester when classes are in session, the accused student should continue attending all classes and continue to complete course requirements while the academic integrity case is pending.

3. Conversion of a Withdrawal: Individual course withdrawals initiated by a student before resolution of an academic integrity case will not remain on the transcript if the student is found to have violated the policy and the resolution of the referral is the assignment of a grade. If the student has withdrawn and has been found to have violated this policy, another grade, including an "F," may be placed on the transcript. If the student has withdrawn and has not been found to have violated this policy, the "W" will remain on the transcript.
4. The 10-day timeframe within this policy is a period of time violation intended to reasonably ensure a swift response while allowing the student a reasonable opportunity to prepare a response. A instructor/administrator, student, or Provost/designee may request an extension of time for good cause (e.g., alleged violation occurring at the end of the semester or during summer or winter session/break); this extension may be granted by the Provost/designee
5. The university may withhold transcripts, grades, and diplomas or take other appropriate actions necessary to preserve its ability to enforce its rules.

Questions concerning the Academic Integrity Policy and Procedures and the availability of forms described in this policy can be directed to the Office of the Provost. A copy of this policy is posted on the Office of the Provost website (www.iup.edu/academicintegrity).

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.

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.

Classroom Disruption Policy

Indiana University of Pennsylvania respects the rights of instructors to teach and students to learn while supporting the principle of freedom of expression. Maintenance of these rights requires classroom conditions that do not impede the learning process.

Instructors have a right and responsibility to maintain a proper learning environment in the classroom. As integral members of this partnership, students are expected to participate actively in the learning experience and must do so in an appropriate manner.

Disruptive conduct in the classroom that interferes with the instructor's performance of their professional functions or that undermines the integrity of student learning will not be tolerated.

Civil expression and disagreement with the course instructor or other students in the class during times when the instructor permits discussion are not considered disruptive conduct.

The instructor's syllabus will serve as the primary guideline for defining disruptive conduct in any given course.

In addition to any syllabus specifications, disruptive conduct includes, but is not limited to:

- Students who routinely enter class late or depart early,
- Students who repeatedly talk in class without being called upon;
- Students who continually interrupt lectures;
- Students who refuse to comply with an instructor's request to stop disruptive conduct;
- Students whose cell phones repeatedly ring and/or emit an audible sound during class or students who repeatedly text during class;
- Students who harass an instructor/classmate;
- Students who threaten an instructor/classmate, physically or verbally, or display aggressive behavior;
- Students whose disruptive conduct otherwise violates university policies including the Student Conduct Policies and Procedures and/or the Sexual Misconduct Policy. This disruptive conduct may result in instructor intervention and/or disciplinary action.

The following procedures are designed to ensure the right of due process for both instructor and student, as well as the University's right to impose penalties for infractions:

1. The instructor will apprise the student of the inappropriateness of the disruptive conduct and ask that the disruptive conduct cease.
2. If disruptive conduct persists, the instructor may:

1. Refer the student to campus support services; and/or
2. Remove the student from class for one class meeting and inform the student to contact the instructor prior to the next scheduled class meeting.
3. If the disruptive conduct persists and negatively impacts the learning of the other students, the instructor may request that the student be removed from class for more than one class period. To do this, the instructor will inform the department chair immediately and submit a signed and dated written statement of the incident to the department chair within two (2) academic calendar days. Within two (2) academic calendar days, the department chair will hold a meeting(s) with the instructor and the student to review the matter. If the student and the instructor cannot reach an agreement, the instructor may refer the student for a violation of the Academic Integrity Policy.

If there is any suggestion of violence, instructors always should err on the side of safety by calling University Police. If the disruptive conduct cannot be mitigated by the above procedure, or if the disruptive conduct continues or magnifies negatively impacting the learning of fellow students, the instructor may, in consultation with the department chair, and with the consent of their academic dean, refer the case to the Office of Student Conduct for adjudication under the Code of Student Conduct and Procedures. The University can impose interim measures, as appropriate, pursuant to the Code of Student Conduct and Procedures.

Note: For this policy, the term "instructor" may include the following individuals: teaching assistants and guest lecturers.

Comprehensive/Candidacy Examinations

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.

Program Level Examination Appeals

Appeals for Program Level Exams such as, candidacy, comprehensive, or qualifying examinations, are made to the dean of 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 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.

Reexamination Policy

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.

In the event a student does not successfully complete the comprehensive re-examination according to program requirements and the failure results in program dismissal, the program must notify the School of Graduate Studies and Research (SGSR) of the dismissal in writing. The SGSR will send an official notification of the dismissal to the student.

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 completion 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 Limitations). For this period, the student will be considered a fulltime 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 Attendance Policy

The university expects all students to attend class.

Individual faculty members may define attendance standards appropriate to each course and the consequences of not meeting those standards, within the following guidelines:

- Each policy must be distributed in writing during the first week of the course. Normally, it is expected that the information dealing with class attendance standards will be distributed with the course syllabus.
- Each policy must define some limited level of allowable absence.
- Each policy must recognize student's need to miss class because of illness, personal emergency, university-sponsored activities, bereavement or active military duty.
- Each policy must not penalize students who add the class during the regular or specified university drop-add period and must allow those students to make up work missed before adding the class.

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:

- A maximum of two graduate level courses may be repeated for grade replacement for each graduate degree or certificate program a student attempts or completes.
- A repeated course may only be repeated once.
- The most recent grade (regardless of whether it is higher or lower) will be the grade used for the GPA calculation.

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 Student Billing 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 masters or doctoral program must receive degree candidacy after completing no less than nine to no more than eighteen credits, as specified by the program(s). Some departments have additional requirements for degree candidacy. Students must consult the program coordinator and the program handbook for a listing of these requirements. The student's minimum grade point average for degree candidacy may be set higher than an overall 3.0 by a program; however,

it cannot be set lower than the overall 3.0 grade point average per requirement of the School of Graduate Studies and Research.

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 Program

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.

Research Policies

IUP faculty, staff, and students are committed to conducting research and scholarly activities in compliance with the highest ethical standards. To preserve the public trust, ensure research integrity, enhance safety, and mitigate risk, all researchers are required to comply with federal, state, and local laws as well as university policies governing the conduct of research. Research compliance training is available online. A comprehensive list of policies and other resources is available on our Policy page; please take note of the following policies from that page of particular importance to student researchers:

- Policy for the Oversight of Research Involving Human Subject
- Preparation and Training of Students Working with Human and/or Animal Subjects Policy
- Research Misconduct Policy
- Research Proposal

Policy for the Oversight of Research Involving Human Subject

It is the policy of Indiana University of Pennsylvania to foster an academic environment that advances ethical conduct in all human subjects research. The IRB is the university group that provides oversight of all human subjects research conducted by IUP faculty, managers, administrators, staff, students, and other researchers formally affiliated with the university, regardless of whether or not the research is funded/sponsored. In compliance with 45 CFR Part 46, this oversight include: (i) determinations of whether or not IRB review is required for a given research project; (ii) review of new human subjects research protocols, changes made to existing human subjects research protocols, and the continuing review of human subjects research protocols; (iii) monitoring of approved human subjects research protocols, including receipt of adverse event reporting; and (iv) reporting non-compliance with this policy to the university Research Integrity Officer for review, consistent with IUP's Policy for Responding to Allegations of Research Misconduct.

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

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.

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 online 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. 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.

Research Misconduct Policy

- Procedures

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

1. **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.
2. **Time Frame:** An inquiry must be completed within 60 calendar days of its initiation unless circumstances warrant a longer period.
3. **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.

4. **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.

5. **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

1. **Definition:** "Investigation" means the formal, confidential examination and evaluation of all relevant facts to determine if misconduct has occurred.
2. **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.
3. **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.

4. **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.

5. **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.

Academic Affairs Division Areas

Timothy S. Moerland, Provost and Vice President for Academic Affairs

John N. Kilmarx, Associate Vice President for Academic Administration

Michele A. Norwood, Assistant Vice Provost for Undergraduate Student Success

Karen Rose Cercone, Provost's Associate

Website: www.iup.edu/academicaffairs

Academic Affairs Areas

The areas below provide instruction in several disciplines that are not specific to one of the university's distinct colleges. They offer services and instruction under the direction of the Office of the Provost.

- Center for Teaching Excellence
- Career and Professional Development Center
- Kathleen Jones White Writing Center
- Office of International Education
- Office of IT Services
- Office of the Registrar

Center for Teaching Excellence

Website: www.iup.edu/teachingexcellence

Stephanie A. Taylor-Davis, Director

The mission of the Center for Teaching Excellence is to foster the enhancement of teaching excellence in all its forms. The center offers many professional development opportunities to the campus community related to teaching and pedagogy. The center recognizes excellence in teaching through selection and presentation of the annual Faculty Recognition Awards. The center's Reflective Practice Project promotes effective teaching through the use of workshops, monthly meetings, and small "teaching circles." New Faculty Orientation, offered by the center, introduces new faculty members to the university and community and explores topics such as teaching, advising, and assessment. Current relevant and research-based teaching resources are available on the center's website. Faculty members are invited and encouraged to utilize the center resources to enhance student engagement in the learning process.

Career and Professional Development Center

Website: www.iup.edu/career **E-mail:** career-development@iup.edu

Tammy Manko, Director

Career services and programs are available to students and alumni. In addition to career education, the primary functions of the office are to arrange for campus interviews, build and maintain a current online database of job and internship opportunities through Handshake, maintain extensive online resources with employment information, conduct follow-up studies of recent graduates, and provide general assistance in the career-planning, job-seeking, and professional development processes. The center provides multiple opportunities for networking and career fair participation, while maintaining an active social media presence with students, alumni, employers, and other stakeholders.

For general information about university internships and co-ops, reach out to the Career and Professional Development Center in 302 Pratt Hall or via phone (724.357.2235) or email (career-development@iup.edu), the student's department internship/co-op coordinator, or the website www.iup.edu/internships.

Kathleen Jones White Writing Center

Website: <https://www.iup.edu/writingcenter/>

Dana Lynn Driscoll, Director

The Jones White Writing Center offers one-on-one tutoring, workshops, dissertation and thesis writing boot camps, writing groups, and writing-related events for the campus community. The Writing Center can assist students with any piece of writing at any stage of the writing process, in person or online. Individual tutorials with trained graduate and undergraduate tutors can last 30-60 minutes and can be scheduled at a variety of convenient times. Class and campus-wide workshops on a wide variety of

writing topics are led by experienced tutors. The Writing Center also offers regular events and activities to support writers on campus. Our main Eicher location offers a quiet, comfortable space with computers, printers, couches, and refreshments for students to work on their writing. Meet us online, in our Eicher 218 location, or most evenings in the Stapleton Library. The website offers a host of online resources available to view and download.

Office of International Education

Website: www.iup.edu/international

Michele L. Petrucci, Associate Vice President for International Education and Global Engagement

Emma Archer, Director of American Language Institute and International Partnerships

TBA, Director of International Student and Scholar Services

Jessica Mulvihill, Director of Education Abroad & National Student Exchange

The Office of International Education (OIE) is a comprehensive international education office and the primary catalyst for IUP's international initiatives. The OIE proactively facilitates, promotes, and organizes the international programs, events, support, and initiatives to more fully diversify IUP and the local western Pennsylvania communities.

The OIE is a central source of information that provides special services for admitted international students, visiting scholars, and international visitors and faculty members. The office is also the main resource and support for education abroad programs and international programming. The office provides the following services:

- extensive orientation program for new international students
- advising on immigration matters
- counseling on cultural and personal matters
- preparation and processing of immigration documents
- predeparture orientation program for education abroad participants
- re-entry program for education abroad participants returning from overseas
- intercultural programming for the campus and Indiana community
- aid to faculty members for international programming and faculty-led education abroad
- organization of international events such as International Education Week and International Unity Day
- management of international programs such as Conversation Partners and International Friendship Program
- management and oversight of IUP's intensive English program, the American Language Institute
- International agreements and partnerships
- International recruiting and marketing

Office of IT Services

William Balint, Director

Website: <https://www.iup.edu/itservices/>

Office of the Registrar

Website: <https://www.iup.edu/registrar/> **Email:** registrars-office@iup.edu

Michael Powell, Registrar

Student Areas of Interest

Student Programs and Services

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

- Student Affairs Division Areas
- Division of Enrollment Management
- University Resources

Student Affairs Division Areas

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

Student Wellness and Engagement

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 Support and Community Standards (Office of)

Website: <https://www.iup.edu/studentsupportandstandards/> **Telephone:** 724-357-1264

Email: community-standards@iup.edu

Student Cooperative Association

Website: www.iup.edu/coop

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

Website: www.iup.edu/mcsle

Division of Enrollment Management

- Undergraduate Admissions
- Graduate Admissions
- Academy of Culinary Arts Admissions
- Admission Operations
- Financial Aid
- University Testing Services

Website: www.iup.edu/enrollment

Maintaining a steady enrollment is crucial to the financial health of the university and to maintaining our historic status among the largest universities in Pennsylvania. The Division represent the full continuum of enrollment management, from recruitment, matriculation, retention, and graduation through the pursuit of professional goals.

Patricia C. McCarthy, Vice President for Enrollment Management
Paula L. Stossel, Assistant Vice President for Enrollment Management
Stacy L. Hopkins, Executive Director of Undergraduate Admissions
Enid E. Resenic, Director, Administrative Services, Culinary Admissions
Ragan Griffin, Director of Financial Aid
Amber Haupt, Director of Graduate Admissions
Tiffanie Fordyce, Director of Admission Operations
Kristen O'Hara, Director of University Testing Services and Continuing Education

Undergraduate Admissions

Website: www.iup.edu/admissions **E-mail:** admissions-inquiry@iup.edu

See the Undergraduate Admissions Policy section of the undergraduate catalog for information.

Graduate Admissions

Website: <https://www.iup.edu/admissions/graduate/> **E-mail:** graduate-admissions@iup.edu

Academy of Culinary Arts Admissions

Website: <https://www.iup.edu/culinary/> **E-mail:** culinary-arts@iup.edu

Admission Operations

Website: <https://www.iup.edu/enrollment/offices/admissions-operations/>

Financial Aid

Website: www.iup.edu/financialaid **E-mail:** financial-aid@iup.edu

See the Financial Aid section of this catalog for information.

University Testing Services

Website: <https://www.iup.edu/universitytesting/> **Email:** university-testing@iup.edu

University Resources

University Police

Website: <http://www.iup.edu/police>

IT Support Center

Website: www.iup.edu/itsupportcenter

The Co-Op Store

Website: <http://www.iupstore.com>

IUP Hadley Union Building

Website: <https://www.iup.edu/coop>

IUP Emergency Notification System

Website: <http://www.iup.edu/ens>

Parking

Website: <http://www.iup.edu/parking>

Requirements for Graduation

Completing your degree does not stop when you have finished your last class or defended your thesis or dissertation! Make sure to plan and prepare for graduating by using the provided quick links.

- **Graduation Checklist**
 - <http://www.iup.edu/commencement/graduate/graduation-checklist/>
- **Deadlines for Thesis and Dissertation**
 - <http://www.iup.edu/graduatestudies/resources-for-current-students/research/thesis-dissertation-information/deadlines/>
- **Graduation Process**
 - <http://www.iup.edu/commencement/graduate/how-to-apply-for-graduation/>
- **Forms for Finishing Your Degree**
 - <http://www.iup.edu/graduatestudies/resources-for-current-students/research/thesis-dissertation-information/all-forms/>
- **Transcript Request**
 - <https://tsorder.studentclearinghouse.org/school/select>

Finances

- Institutional Fees
- Financial Aid

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 <http://www.iup.edu/student-billing/>.

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 <http://www.iup.edu/student-billing/>. 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

- Title IV Satisfactory Academic Progress Policy
- Title IV Financial Aid Satisfactory Academic Progress Policy
- Title IV Verification of Participation in Academically Related Activities Policy

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 fulltime 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 noncompleted (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 Student Billing 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 Student Billing will use the recorded information to determine the amount of Title IV student aid may be awarded and/or returned.

IUP Site Locations and Regional Campuses

- Fees
- Rules and Regulations Concerning Student Behavior
- Northpointe Regional Campus
- Punxsutawney Regional Campus
- IUP Pittsburgh East
- IUP Site Locations
- IUP Centers and Institutes

Richard J. Muth, Director, Regional Campuses

IUP operates three regional campuses, one in Punxsutawney, one at Northpointe in Freeport, and one at Pittsburgh East in Wilkins Township. The first regional campus was established in 1962 in Punxsutawney. The following year, the Armstrong campus in Kittanning was opened. In the summer of 2005, the Armstrong campus relocated to a new facility in Freeport and became the Northpointe Regional Campus. The Pittsburgh East Campus, formerly named the Monroeville Center, was established in 1996.

Control of the regional campuses is directly vested with the IUP administration and Council of Trustees. Regional campuses carry full accreditation as integral parts of the undergraduate and graduate programs of IUP.

Programs of Study

All three locations offer courses and programs at the undergraduate level, graduate level, or both. The Punxsutawney campus also hosts certificate and associate programs in Culinary Arts and Baking & Pastry, as well as Clinical Medical Assistant certificate programs. All three locations also host conferences and non-credit workshops.

Faculty advisors and administrators at the regional campuses are available to advise and support students on their instructional programs.

Admission

Any prospective student who wishes to attend a regional campus may apply for admission by applying online through the IUP Admissions website, www.iup.edu/admissions.

Fees

Northpointe and Punxsutawney students are not required to pay the activity fee or wellness fee. Please see the Finances section of this catalog for further information on other fees payable by all IUP students.

Rules and Regulations Concerning Student Behavior

Students at the regional campuses are subject to the same rules and regulations as students at the Indiana campus. More information is available at www.iup.edu/studentconduct/ and in the Undergraduate or Graduate Catalogs.

Northpointe Regional Campus

The Northpointe Regional Campus is a commuter campus located at Exit 18 off Route 28 with the primary mission of providing local access to higher education opportunities. These greater opportunities for residents foster economic and professional growth for the region. Both credit and noncredit programs are offered at the Northpointe campus, with special emphasis on certificate and associate, bachelor's, and master's degrees. Required courses for the first year and, in some majors, the second year are also offered for local IUP students.

This campus is also the host for the IUP Respiratory Care program. Junior and Senior students in this program attend the Northpointe Regional Campus to complete degree requirements.

Requests for additional information may be made to the administrative office of the campus. The address follows:

IUP Northpointe Regional Campus
167 Northpointe Boulevard
Freeport, PA 16229
724-294-3300
northpointe-campus@iup.edu
www.iup.edu/northpointe

Punxsutawney Regional Campus

The focus of the Punxsutawney Regional Campus is to offer academic opportunities needed locally, regionally, and across the commonwealth. Students will be able to complete their first year of classes in most degree programs as well as complete a growing number of certificate and associate degree programs. Online and other technology-offered classes will increase opportunities and the option to increase the time enrolled in classes on the Punxsutawney Campus.

The Punxsutawney Regional Campus has a living center supporting a residential college experience. The campus has a full-service dining commons where meals are served when the university is in session. The same food service contractors serving the Indiana campus operate the Punxsutawney dining program.

To request additional information about the Punxsutawney Regional Campus, please contact

IUP Punxsutawney Regional Campus
1012 Winslow Street
Punxsutawney, PA 15767
814-938-6711
iup-pxy@iup.edu
www.iup.edu/pxy

IUP Pittsburgh East

This instructional site is located on the ninth floor of building No. 4 in Penn Center East. IUP offers 11 graduate degrees at both the master's and doctoral level at this location, as well as several noncredit programs and workshops.

Requests for additional information may be made to the administrative office. The address is:

IUP Pittsburgh East
400 Penn Center Boulevard
Building 4, Suite 900

Pittsburgh-East@iup.edu
www.iup.edu/pittsburgh-east

IUP SITE LOCATIONS

IUP Academy of Culinary Arts
125 S. Gilpin St.
Punxsutawney, PA 15767

Dixon University Center
2986 N. 2nd St.
Harrisburg, PA 17110

IUP Police Academy
California University of Pennsylvania
250 University Ave.
California, PA 15419

The Arab American University (AAU)
Jenin-Oakestube
240 Jenin, 3 Zababdeh
Israel

IUP Police Academy
Robert Morris University
6001 University Blvd.
Moon Township, PA 15108

Southwestern University of Finance and Economics
555, Liutai Ave.
Wenjiang District
Chendgu, Sichuan
P.R. China, 611130

CCAC, Boyce Campus
595 Beatty Rd.
Monroeville, PA 15146

People's Education Society University
100 Feet Ring Rd.
BSK III Stage
Bangalore - 560085
India

IUP Centers and Institutes

Website: <https://www.iup.edu/research/centers/>

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.

Military and Veterans Resource Center

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 veteran's website at www.iup.edu/veterans.

The University College

Yaw A. Asamoah , Dean

Amber N. Racchini, Dean's Associate
D. Edward Zimmerman, Assistant Dean, IUP Libraries
Patricia A. Cornman, Assistant to the Dean, IUP Libraries
Kelly L. Heider, Chairperson, IUP Libraries
Luke E. Faust, Chairperson, Undergraduate Studies & Student Success
Craig R. Dillaman, Director of Academic Services
Brian Carothers, Instructional Design Specialist
Nancy R. Evans, Instructional Design Specialist
Hillary B. Stitt, Assistant Director for Student Success
Megan A. McCue, Assistant Director for Academic Services & Student Advocate
Allison Baker, Student Success Specialist
Jeremy B. Risinger, Student Success Specialist

Website: www.iup.edu/university-college

The University College was created to strengthen IUP's tradition of nurturing student success by enhancing the support provided to all students. From its central location on campus, the University College provides accessible wayfinding experiences for students who are unsure of their academic path, and possibly their personal and career goals. The entire campus can utilize the University College staff and faculty to help students navigate their way through the wealth of academic services and resources available to them. Under a new structure announced in the summer of 2021, the University College now includes Academic Services, the Academic Success Center (ASC@IUP), Exploratory Studies, University Libraries, and the Department of Undergraduate Studies and Student Success.

The University College Includes:

ACADEMIC SERVICES

Craig Dillaman, Director
New Student Orientation (Office of)
Website: www.iup.edu/orientation
E-mail: orientation-testing@iup.edu

IUP provides an orientation program for all new students, including all entering first-year and transfer students. Students are expected to participate in the mandatory orientation program that provides information, resources, and interactions designed to ensure a successful first-year or transfer experience. IUP views student orientation as an opportunity to showcase the academic and student experiences that are important to initial success, satisfaction, and retention within the university. The first year at IUP is critical for our students' academic success. During this time, students must develop academic competency in the college curriculum and adjust to the personal decision-making process college life affords. New Student Orientation is designed to assist with this important college adjustment. First-year and transfer students are expected to participate fully in the orientation program, including any overnight components and associated activities.

First-year Spring/Summer Orientation: The orientation, advising, and course registration program occurs during the spring or summer immediately preceding students' matriculation on campus. This overnight, two-day program is designed to assess the student's academic readiness for courses integral to the IUP curriculum and acquaint them with the IUP collegiate experience. A concurrent Parent and Family Member Orientation is also offered.

Transfer Summer Orientation: Transfer orientation serves to acquaint students with prior college experience with IUP resources to support their academic and career success. The program provides placement testing for students in selected majors, concluding with advisement and course registration. A concurrent Parent and Family Member Orientation is also offered.

Instructional Design Services

Website: <https://www.iup.edu/instructional-design/>

Email: Instructional-Design@iup.edu

Instructional Design Services provides instructional resources and support for all IUP instructors, administrators, and managers.

- Services range from consulting and tackling instructional challenges to supporting faculty in planning and developing courses and projects, regardless of delivery method (e.g., online, hybrid, face-to-face).
- Instructional Design Services also offers professional development opportunities focused on teaching, learning, and working with faculty experts in all content areas to create high-quality learning experiences for IUP students.

Course Planning and Forecasting

The Course Planning and Forecasting unit will focus on student academic needs as they progress through their time at IUP. This area will work with colleges & departments, the Office of the Registrar, Enrollment Management, Information Technology, and Office of Institutional Research in projecting course demands and addressing specific course needs to help students graduate on time.

Advising Support

The Advising Support unit will coordinate the efforts of the Center for Teaching Excellence, Information Technology, and the respective college leadership groups to provide information on best practices, technical resources, and quantitative data that can be used to guide academic advising initiatives.

ACADEMIC SUCCESS CENTER (ASC@IUP)

Amber Racchini, Dean's Associate

Website: www.iup.edu/success

The Academic Success Center at IUP (ASC@IUP) supports the achievement of students as they attain their academic goals. ASC@IUP is a collaboration between the divisions of Academic

Affairs, Student Affairs, and Enrollment Management. It serves as a hub through which students can navigate the network of offices and service providers across the university.

Equally important is the support provided to faculty members in their role as academic advisors. ASC@IUP provides resources to faculty, using a variety of avenues, which are important tools for working with students.

Components of ASC@IUP include The Office of the Student Advocate, the ASC@IUP Walk-in Tutoring Center, supplemental instruction, peer mentoring, and the Hawks Q&A Center.

Student Advocate (Office of the)

Website: www.iup.edu/success/student-advocate/

Email: asc-inquiry@iup.edu

Building on a culture of student success and retention, the Office of the Student Advocate provides personal student support, outreach services to at-risk populations, and information/referrals to other campus resources for both students and parents. The Advocate assists currently enrolled students as they navigate university systems; addresses concerns about academic policies and life on campus, and provides referrals as appropriate, with the goal of assisting students to fully engage in the learning process.

The Student Advocate oversees the LEAD Peer Mentoring program which is available for all students. Through this relationship, mentees will have the opportunity to Learn, Explore, Advance, and Develop. Mentors are fellow students who guide students to resources and experiences across the university. All students have easy access to the Student Advocate, a staff member dedicated to helping students through any roadblocks they might encounter.

The Student Advocate also serves as the point-of-contact for any student seeking to withdraw from the university by coordinating the Total University Withdrawal process with other offices on campus. The Advocate strives to create a supportive environment and offers high quality services on behalf of the entire student population in collaboration with others across the university.

ASC@IUP Tutoring Center

Website: www.iup.edu/success

IUP offers several tutoring services for students, the ASC@IUP Tutoring Center provides free peer-to-peer tutoring with no appointment necessary and is located in Stabley Library. Students should refer to the Tutoring Schedule online at the start of each semester for specific tutoring times and locations. Supplemental Instruction (SI) and other discipline-specific tutoring can be found at other locations across campus.

Supplemental Instruction

Supplemental Instruction provides small-group study and review sessions for sections of courses with difficult content or high levels of failure and withdrawal rates.

Peer leaders guide students on how to learn course content. The sessions supplement, but do not replace, out-of-class preparation for the course. All students in designated course sections who want to improve their understanding of course content and grades are urged to participate weekly. As a group, students review notes, clarify text material, discuss ideas, complete worksheets, prepare for tests, and take practice exams.

Peer Mentoring

Website: <https://www.iup.edu/success/student-advocate/peer-mentoring-program/>

The LEAD and University College Peer Mentoring Programs provide students the opportunity to strengthen their on-campus experience by connecting them with an upper-class student mentor who is pursuing similar career goals, or has a similar background, concentration, or academic interest.

Hawks Q&A Center

Website: <https://www.iup.edu/studentlife/hawks-q-a-center/>

For those who are not sure who to ask, or are having trouble finding the right office, the Hawks Q&A Center is a one-stop shop for questions about IUP! The Center is here to unravel whatever feels complicated.

EXPLORATORY STUDIES

Amber Racchini, Dean's Associate

Website: <https://www.iup.edu/university-college/exploratory-studies/>

The University College offers six subject-area-based, exploratory major options. Students select one, which will act as a starting point for finding the major that inspires them. College Mentors will help students identify their strengths and interests.

EXPL-STEM: Science, technology, engineering, or mathematics as well as programs in anthropology, geography, geoscience, and safety sciences

EXPL-AH: Arts such as art, dance, fashion merchandising, interior design, music, theatre; as well as Humanities such as English, foreign languages, history, philosophy and religious studies, and political science

EXPL-EDU: Communications, disability services, early childhood education, family studies, special education, and speech pathology

EXPL-HHS: Criminology, health and physical education, nursing and allied health, nutrition, psychology, sociology, and sports sciences

EXPL-BU: Accounting, economics and finance, hospitality management, management, and marketing

EXPL: disciplines from across the entire university

UNIVERSITY LIBRARIES

Kelly Heider, Chair

Website: <https://www.iup.edu/library>

The IUP Libraries include the Patrick J. Stapleton, Jr. Library, the Rhodes R. Stabley Library, and the Orendorff Music Library. Stapleton and Stabley Libraries form a combined structure located in the southwest corner of the Oak Grove. The Orendorff Music Library is located in Cogswell Hall.

Upon entering the Stapleton/Stabley Library complex, students are greeted by a smiling face at our Information Desk. Here, you can get help with your research or ask any question about IUP. We won't stop until we get you an answer! Once inside, grab a cup of coffee and a snack at the Commonplace Coffeehouse & Roastery before you find a space on one of four floors for quiet or group study.

Undergraduate students have a wealth of resources and services available to them through the IUP Libraries!

Resources

The Stapleton/Stabley Library collection includes over half a million books and e-books, 26,700 children's books, over 100,000 print and electronic journals, and 30,671 audiovisual materials. Special Collections and University Archives, located on the third floor of Stapleton Library, collects, organizes, preserves, and provides access to research materials, rare books, artifacts, items related to the institutional history of IUP, and so much more!

The Orendorff Music Library features a large commons area with comfortable furniture for quiet and group study. The music collection includes more than 7,000 volumes of monuments and collected editions, 3,000 reference books, 12,000 circulating books, 30,000 scores, 10,000 LP sound recordings, and 5,000 compact discs.

Most of our collections are accessible in digital format through our website using your MyIUP username and password. Print format-only materials may be checked out for 30 days.

Services

- Need help finding resources for an assignment? **Meet with a librarian** (<https://iup.libcal.com/appointments/>) in our Research Consultation Room or via Zoom.
- Need to grab a book at the library but don't have much time between classes? Use the **Get It – Request** (<https://www.iup.edu/library/circulation/get-it--request-iup-books/>) feature in the Discovery Search or Library Catalog to have your books waiting for you to pick up at circulation services on the first floor of Stapleton Library.
- Need a computer? Work at one of our desktops located throughout the library or borrow a laptop from circulation services.
- Need help writing a paper? Meet with a tutor in the evenings at the satellite writing center on the first floor of Stapleton Library.

- Need to produce a video for a class assignment? Reserve Studio 1b, an innovative video production facility designed for one-button recording and production at circulation services.
- Need to work on a project with some classmates? Reserve a group study room at circulation services.
- Need a book or journal article for one of your classes that isn't part of our collection? Place an item request through interlibrary loan (<https://www.iup.edu/library/interlibrary-loan/>).
- Need to access a book your professor placed on reserve? Visit circulation services.
- Need to become more information literate? Take a class with Professor Drummond, our Undergraduate Information Literacy Librarian, or help yourself through our **Library Help for Students** (<https://libraryguides.lib.iup.edu/ILforstudents>) LibGuide which includes videos and tutorials designed to improve your research skills.

According to the Association of College and Research Libraries (2017), students benefit from library instruction in their initial coursework, library use increases student success, collaborative academic programs and services involving the library enhance student learning, information literacy instruction strengthens general education outcomes, and library research consultations boost student learning. So, what are you waiting for? Start taking advantage of the many resources and services IUP Libraries provide. We're here to help!

UNDERGRADUATE STUDIES AND STUDENT SUCCESS

Through its curriculum, programs, academic support and advising, the Department of Undergraduate Studies and Student Success provides IUP students with courses and services designed to enhance the development and success of all students.

Student support services provided include:

Advising. Each student in the University College has a first-year College Mentor.

College Mentor. This is a professor who will work with the student to monitor their academic progress and assist them in navigating the many university offices and their services.

Help with selecting a major. Dedicated programming in the Career and Professional Development Center and Pathways courses.

Student Success courses. During the first year, students are enrolled in courses that are taught by professors from different departments with a goal of building skills for academic success throughout their college career, while finding the pathway to a major.

Peer mentoring. Peer Mentors are fellow students who guide new students to resources and experiences across the university, helping them to make connections with each other.

Academic support. Students have access to academic support services such as tutoring, supplemental instruction, and skill-building workshops. The Student Success Series bring students together to learn about campus resources and to meet others.

Act 101 Program

Students identified as eligible for Act 101 support may be admitted to the Act 101 Program. Please see detailed information on the IUP

website: <https://www.iup.edu/devstudies/academic-support/act-101/>

Programs of Study

Indiana University of Pennsylvania offers several programs leading to professional licensure or certification within the State of Pennsylvania. Other states vary in what professions they require to be licensed/certified and how licensure/certification is acquired. Some states require an individual to graduate from an accredited program. Others require individuals to obtain additional coursework, additional fieldwork, background checks, passage of additional state licensing exams, additional fees, or other requirements. Students should check licensure/certification requirements in the specific state where they wish to work to make sure their educational program prepares them for employment in their desired profession.

Indiana University of Pennsylvania

School of Graduate Studies and Research

Masters

Master of Arts

Applied Archaeology, MA

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 US Secretary of the Interior's qualification standards for professional archaeologists upon graduation (for individuals already employed in the field of cultural resource management) or to meet all the requirements except for a full year of experience a supervisory level (for students who enter the program immediately after graduation with a BA degree). Students are trained in the current relevant subjects for professional archaeologists including preservation law, ethics, business, and archaeological methods, have the writing skills to prepare technical reports and publications for the general public, and have specialized training in critical technical skills such as artifact and faunal analysis, geophysical surveys, and Section 106 and NEPA compliances.

Department resources include zooarchaeology and forensic comparative collections, flotation and microscopy labs, geophysical, and geochemical instrumentation, and 3-D scanning and photogrammetry 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 housed in the Anthropology Department, provides employment opportunities as well as professional and supervisory experience for students prior to graduation. The MA program is supported by an advisory board of professional archaeologist representing private companies, state and federal agencies, and tribal historic preservation offices, to ensure that the program remains responsive to industry needs.

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, including a 6 week (or equivalent) North American 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. 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 and Regional Planning Department, or another relevant certificate program from another department. Courses in these certificate programs can 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 **Credits: 3**
- ANTH 612 - Seminar in Cultural Resource Management I: Method and Theory **Credits: 3**
- ANTH 616 - Pre-Columbian North American Archaeology **Credits: 3**
- ANTH 618 - Historical Archaeology **Credits: 3**
- ANTH 714 - Seminar in Cultural Resource Management II: Analysis and Interpretation **Credits: 3**
- ANTH 745 - Seminar in Archaeological Interpretation **Credits: 3**

II. Electives (12 cr.)

(At least 9 credits must have ANTH prefix)

- ACCT 502 - Foundations of Financial Accounting **Credits: 3**
- ACCT 607 - Accounting for Decision Making **Credits: 3**
- ANTH 513 - Archaeology of Coasts **Credits: 3**
- ANTH 514 - Contemporary Native American Cultures **Credits: 3**
- ANTH 556 - Ethnographic Research Methods **Credits: 3**
- ANTH 560 - Ethnographic Field School **Credits: 6**
- ANTH 581 - Special Topics **Credits: 3**
- ANTH 570 - Environmental Archaeology **Credits: 3**

- ANTH 584 - Specialized Methods in Archaeology **Credits: 3**
- ANTH 586 - Historic Artifact Analysis **Credits: 3**
- ANTH 587 - Geoarchaeology **Credits: 3**
- ANTH 588 - Geophysical Applications in Archaeology **Credits: 3**
- ANTH 589 - Prehistoric Technologies of Eastern North America **Credits: 3**
- ANTH 590 - Applied Spatial Methods in Archaeology **Credits: 3**
- ANTH 591 - Zooarchaeology **Credits: 3**
- ANTH 592 - Soil Science: Archaeological and Geoenvironmental Applications **Credits: 3**
- ANTH 596 - Human Osteology **Credits: 3**
- ANTH 597 - Forensic Anthropology **Credits: 3**
- ANTH 625 - Public Archaeology **Credits: 3**
- ANTH 694 - Anthropology Seminar **Credits: 3**
- ANTH 699 - Independent Study **Credits: 3**
- ANTH 720 - Issues in Historic Preservation **Credits: 3**
- ANTH 730 - Archaeology of Pennsylvania **Credits: 3**
- ANTH 740 - Advanced Archaeological Field Methods **Credits: 3-6**
- GEOG 515 - Introduction to Remote Sensing **Credits: 3**
- GEOG 516 - Introduction to Geographic Information Systems **Credits: 3**
- GEOG 519 - Geographic Information Systems (GIS) for Environmental Applications **Credits: 3**
- GEOG 625 - Environmental Planning **Credits: 3**

III. Internship and Thesis (6 cr.)

- ANTH 698 - Internship **Credits: 3**
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 **Credits: 3-6**
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.

Clinical Mental Health Counseling, MA

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 and individual and group practica, as well as 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 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 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 credit hours of credit for the degree. The program requires the following courses:

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

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 Graduate Coordinator to determine these requirements. Applicants are required to attend an admissions workshop as the final step in the admissions process and should contact the Graduate Coordinator to obtain deadlines for completed applications to be received by the School of Graduate Studies and Research.

For current students, an annual evaluation of 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.

Criminology, MA

The Master of Arts 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 an MA 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 MA degree in Criminology must possess the essence of knowledge offered in the undergraduate (BA) 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 **Credits: 3**
- CRIM 601 - Proseminar **Credits: 3**

- CRIM 605 - Research Methods **Credits: 3**
- CRIM 610 - Legal Issues in Criminology **Credits: 3**
- CRIM 632 - Organizational Dynamics within the Criminal Justice System **Credits: 3**
- CRIM 718 - Quantitative Strategies for Analysis in Criminology **Credits: 3**
- CRIM 730 - Ethical and Philosophical Issues in Criminology **Credits: 3**
- CRIM 795 - Thesis **Credits: 6**
- --- Electives **Credits: 3**

Total (30 cr.)

II. Non-Thesis Degree Requirements:

A total of 30 semester hours is required, including:

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

Total (30 cr.)

Education, Training, and Instructional Technology, MA

The Master of Arts in Education, Training, and Instructional Technology (ETIT): Instructional Design and Technology track prepares graduates for careers in instructional design, education technology, distance education, training, media development, and other positions across a variety of professional settings including business and industry, PK-21 education systems, higher education, health care, and government organizations. ETIT graduates are skilled professionals who specialize in designing, facilitating, and evaluating education and training programs for both classroom and digital learning environments. The ETIT program offers a balance of academic preparation, hands-on technical skill development, and training on the development and application of a diversity of education technologies. Professional preparation for students in education, training, and instructional technology is realized through helping them develop:

- A specialized knowledge of the literature, research, and theories in instructional design and instructional technology.
- Specific skills to enhance performance as an instructional design professional.
- The ability to communicate effectively in writing, orally, and across a variety of digital platforms.
- Accessible education and training programs for a variety of settings and learners.

In addition to the regular School of Graduate Studies and Research requirements, applicants for the MA in Education, Training, and Instructional Technology are required to submit a resume. The program can be completed at the Indiana campus or from a distance using video conference technology.

Program Requirements

I. Core Courses (21 cr.)

- ETIT 600 - Introduction to Instructional Design **Credits: 3**
- ETIT 610 - Learning Management Systems **Credits: 3**
- ETIT 617 - Distance Education Technology **Credits: 3**
- ETIT 622 - Program and Project Planning **Credits: 3**
- ETIT 624 - Designing Accessible and Inclusive Instruction **Credits: 3**
- ETIT 630 - Digital Pedagogy **Credits: 3**
- ETIT 700 - Advanced Instructional Design **Credits: 3**

II. Research Requirement (3 cr.)

- ETIT 745 - Applied Research in Instructional Design and Technology **Credits: 3**
or
- GSR 615 - Elements of Research **Credits: 3**
or
- other graduate level research course as approved by advisor (3 credits)

or
- ETIT 698 - Internship **Credits: 0-6**

III. Either

A. Thesis Option (6 cr.)

- ETIT 795 - Thesis **Credits: 6**

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

*A portfolio is required for non-thesis option students

- ETIT 698 - Internship **Credits: 0-6**
or
- Electives **Credits: 0-6** (as approved by advisor)

Total 30 cr.

English/Composition and Literature, MA

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 **Credits:** 3
- ENGL 674 - Research Trends in English **Credits:** 3
- ENGL 676 - Critical Approaches to Literature **Credits:** 3

II. Pedagogy and Praxis Courses (6 cr.)

Choose two courses:

- ENGL 518 - Young Adult Literature **Credits: 3**
- ENGL 614 - Critical Pedagogy in English Education **Credits: 3**
- ENGL 730 - Research and Practice in the Teaching of College Composition **Credits: 3**
- ENGL 757 - Digital Composition, Literature, and Pedagogy **Credits: 3**
- ENGL 760 - Teaching College Literature **Credits: 3**

III. Literature Electives (6 cr.)

Choose two courses:

- ENGL 757 - Digital Composition, Literature, and Pedagogy **Credits: 3**
- ENGL 760 - Teaching College Literature **Credits: 3**
- ENGL 761 - American Literature before 1870: **Credits: 3**
- ENGL 762 - American Literature since 1870: **Credits: 3**
- ENGL 763 - British Literature before 1660: **Credits: 3**
- ENGL 764 - British Literature Since 1660: **Credits: 3**
- ENGL 765 - Literature as Genre: **Credits: 3**
- ENGL 766 - Comparative Literature: **Credits: 3**
- ENGL 771 - Postmodern Literature: **Credits: 3**
- ENGL 772 - Women's Literature: **Credits: 3**
- ENGL 773 - American or British Minority Literature **Credits: 3**

IV. Composition Electives (6 cr.)

Choose two courses:

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

V. Capstone (3 cr.)

- ENGL 753 - Studies in Literature as a Profession **Credits: 3**
or
- ENGL 698 - Internship **Credits: 3-6** (for Ed option)

VI. Additional Optional Credits (3 cr.)

- ENGL 795 - Thesis **Credits: 6**

VII. Non-Credit Requirements

Proof of attendance at 6 professionalizing events.

Minimum TOEFL (or equivalent) score of 560.

Total 30 cr.

English/Literature, MA

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/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 MA 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 **Credits: 3**
- ENGL 676 - Critical Approaches to Literature **Credits: 3**
- ENGL 753 - Studies in Literature as a Profession **Credits: 3**
or
- ENGL 698 - Internship **Credits: 3-6**

II. Period Courses (9 cr.)

Choose three courses:

- ENGL 761 - American Literature before 1870: **Credits: 3**
- ENGL 762 - American Literature since 1870: **Credits: 3**
- ENGL 763 - British Literature before 1660: **Credits: 3**
- ENGL 764 - British Literature Since 1660: **Credits: 3**

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

Choose one course:

- ENGL 766 - Comparative Literature: **Credits: 3**
- ENGL 771 - Postmodern Literature: **Credits: 3**
- ENGL 772 - Women's Literature: **Credits: 3**
- ENGL 773 - American or British Minority Literature **Credits: 3**

IV. Literature Electives (6 cr.)

Choose two courses:

- ENGL 518 - Young Adult Literature **Credits: 3**
- ENGL 757 - Digital Composition, Literature, and Pedagogy **Credits: 3**
- ENGL 760 - Teaching College Literature **Credits: 3**

- ENGL 761 - American Literature before 1870: **Credits: 3**
- ENGL 762 - American Literature since 1870: **Credits: 3**
- ENGL 763 - British Literature before 1660: **Credits: 3**
- ENGL 764 - British Literature Since 1660: **Credits: 3**
- ENGL 765 - Literature as Genre: **Credits: 3**
- ENGL 766 - Comparative Literature: **Credits: 3**
- ENGL 771 - Postmodern Literature: **Credits: 3**
- ENGL 772 - Women's Literature: **Credits: 3**
- ENGL 773 - American or British Minority Literature **Credits: 3**

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

Total 30 cr.

English/Teaching English to Speakers of Other Languages (TESOL), MA

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/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 **Credits: 3**
- ENGL 644 - ESOL Teaching Methodology, Materials, and Instructional Technology **Credits: 3**
- ENGL 649 - Introduction to Research in Applied Linguistics and TESOL **Credits: 3**
- ENGL 724 - Second Language Acquisition **Credits: 3**
- ENGL 725 - Second Language Literacy **Credits: 3**

II. Teacher Education Component (6 cr.)

Students take two of the following courses:

- ENGL 688 - Practicum in TESOL **Credits: 3**
- ENGL 694 - Observation in Teaching English **Credits: 3**
- ENGL 696 - Internship in ESL/EFL **Credits: 3**

III. TESOL Electives (9 cr.)

Students choose any three from the following courses:

- ENGL 734 - Linguistics and the English Teacher **Credits: 3**
- ENGL 641 - Topics in ESL Pedagogy **Credits: 3**
- ENGL 699 - Independent Study **Credits: 1-3**
- ENGL 723 - Second Language Teaching **Credits: 3**
- ENGL 725 - Second Language Literacy **Credits: 3**
- ENGL 730 - Research and Practice in the Teaching of College Composition **Credits: 3**
- ENGL 742 - Cross-Cultural Communication **Credits: 3**
- ENGL 744 - Reading Theory and the College English Teacher **Credits: 3**
- ENGL 754 - World Englishes in Composition and Applied Linguistics **Credits: 3**

IV. Open Electives (6 cr.)

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

Total 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.

Human Resources and Employment Relations, MA

The Master of Arts in Human Resources and Employment Relations is a multidisciplinary, graduate-degree program designed to prepare professional practitioners in the fields of human resource management and employment relations in the public and private sectors and the training of neutrals and those wanting to work for employee service organizations. The 36-semester-hour program consists of a required core of 24-semester-hours and elective course offerings totaling 12-semester-hours. In consultation with the Advisor, each student will individually build the elective sequence of the program of study by choosing 12-elective-semester hours from among human resource and employment 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 BS or BA 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 Requirement

I. Required Core (24 cr.)

- ELR 610 - Employee Rights under Law **Credits: 3**
or
- HSAD 610 - Employee Rights under Law **Credits: 3**
- ELR 615 - Dispute Settlement **Credits: 3**

- ELR 619 - Research Methods in Human Resources and Employment and Labor Relations **Credits: 3**
or
- HSAD 619 - Research Methods in Human Resources and Employment and Labor Relations **Credits: 3**
- ELR 625 - Processes of Collective Bargaining **Credits: 3**
- ELR 627 - Organizational Behavior **Credits: 3**
or
- MGMT 505 - Organizational Staffing **Credits: 3**

- ELR 631 - Human Resources Management in the Public Sector **Credits: 3**
or
- HSAD 631 - Human Resources Management in the Public Sector **Credits: 3**
- ELR 632 - Compensation Administration **Credits: 3**
or
- MGMT 500 - Compensation Management **Credits: 3**

- ELR 641 - Contract Administration **Credits: 3**

II. Elective Area (12 cr.)

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

- ELR 526 - Case Studies in Labor-Management Relations **Credits: 3**
- ELR 580 - Introduction to Negotiations and Conflict Resolution **Credits: 3**
- ELR 581 - Special Topics in Employment and Labor Relations **Credits: 3**
- ELR 612 - Labor Relations Practice and Administration **Credits: 3**
- ELR 613 - Fundamentals of the American Labor Movement: Theory and Practice **Credits: 3**
- ELR 616 - Health Law **Credits: 3**
- ELR 618 - Seminar: Current Issues in Employment and Labor Relations **Credits: 3**
- ELR 621 - Labor Relations in the Public Sector **Credits: 3**
- ELR 622 - Discrimination in Employment **Credits: 3**
- ELR 624 - Comparative Labor Relations **Credits: 3**
- ELR 640 - Negotiations **Credits: 3**
- ELR 642 - Concerted Activity **Credits: 3**
- ELR 650 - Alternative Work Styles **Credits: 3**
- ELR 681 - Special Topics in Employment and Labor Relations **Credits: 3**
- ELR 698 - Internship **Credits: 3 or 6**
- ELR 699 - Independent Study **Credits: 3**
- ELR 795 - Thesis **Credits: 1 to 6**
- ECON 634 - Managerial Economics **Credits: 3**
- MGMT 501 - Management Development and Training **Credits: 3**

Total 36 cr.

Music, MA

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 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 requires a recital as a culminating project. Students who aspire to further academic training in music may also complete an optional thesis for elective credit. The choral conducting and wind band conducting tracks are available in the traditional on-campus format or the low-residency online format, which offers private conducting lessons via videoconferencing and several online core courses during the fall and spring semesters; remaining courses can be completed during the two-week summer intensive session.

Admissions 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 US 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

Music Education Specialization

I. Music Education Specialization Core Courses (9 cr.)

- LIBR 600 - Bibliography of Music **Credits: 3**
- MUSC 516 - Analytical Techniques **Credits: 3**

And One of the Following Music History Courses:

- MUHI 503 - Music of the Baroque Era **Credits: 3**
- MUHI 504 - Music of the Classical Era **Credits: 3**
- MUHI 520 - Music Since 1900 **Credits: 3**
- MUHI 521 - Topics in American Music **Credits: 3**
- MUHI 525 - Nineteenth-Century Music **Credits: 3**

II. Music Education Specialization (9 cr.)

- MUSC 620 - Foundations of Music Education **Credits: 3**
- MUSC 631 - Administration and Advocacy in Music Education **Credits: 2**
- MUSC 636 - Advanced Technology of Music Education **Credits: 2**
- MUSC 640 - Formative Assessment and Action Research in Music Education **Credits: 2**

III. Music Education Specialization Courses (6 cr.)

Students may choose from the following courses:

- EDSP 523 - Educational Programming for Gifted Learners **Credits: 3**
- EDSP 577 - Assessment of Student Learning **Credits: 3**
- EDSP 624 - Social, Emotional, and Cultural Factors in the Education of Gifted Learners **Credits: 3**
- EDEX 569 - Education of Persons with Emotional/Behavioral Disorders, Learning Disabilities, or Brain Injury **Credits: 3**
- EDEX 578 - Education of Persons with Intellectual/Developmental Disabilities and Physical/Multiple Disabilities **Credits: 3**
- EDSP 704 - Advanced Educational Psychology **Credits: 3**

IV. Music Education Specialization Electives (6 cr.)

Students may choose from the following courses:

- MUSC 503 - Practicum in String Pedagogy **Credits: 1**
- MUSC 537 - Techniques of the Marching Band **Credits: 2**
- MUSC 540-550 - Summer Music Workshop **Credits: 1-3**
- MUSC 635 - Psychology of Music Education **Credits: 2**
- MUSC 501 - Advanced Choral Conducting **Credits: 2**
- MUSC 502 - Advanced Instrumental Conducting **Credits: 2**

- MUHI 503 - Music of the Baroque Era **Credits: 3**
- MUHI 504 - Music of the Classical Era **Credits: 3**
- MUHI 525 - Nineteenth-Century Music **Credits: 3**
- MUHI 520 - Music Since 1900 **Credits: 3**
- MUHI 521 - Topics in American Music **Credits: 3**
- MUSC 575 - Music Ensemble **Credits: 1-3**
- MUSC 681 - Special Topics **Credits: 1-4**
- APMU 601 - APMU 771 - Applied Music Lessons **Credits: 4**
- MUSC 795 - Thesis **Credits: 4**

V. Comprehensive Examination

Music Performance Specialization

I. Music Performance Specialization Core Courses (9 cr.)

- MUSC 516 - Analytical Techniques **Credits: 3**
- LIBR 600 - Bibliography of Music **Credits: 3**

And One of the Following Music History Courses:

- MUHI 503 - Music of the Baroque Era **Credits: 3**
- MUHI 504 - Music of the Classical Era **Credits: 3**
- MUHI 525 - Nineteenth-Century Music **Credits: 3**
- MUHI 520 - Music Since 1900 **Credits: 3**
- MUHI 521 - Topics in American Music **Credits: 3**

II. Music Performance Specialization Applied Music Courses (12 cr.)

- APMU 601 - APMU 771 **Credits: 12**

III. Music Performance Specialization Electives* (6 cr.)

APMU, MUSC or MUHI prefix, 500 or above 6 cr.

IV. Music Performance Specialization Culminating Project (4 cr.)

- APMU 740 - Graduate Music Recital **Credits: 4**

Total: 31 credits

*MUSC 575 may only be taken for a maximum of 4 elective credits.

Public Affairs, MA

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:

* 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.

- PLSC 500 - Research Methods in Political Science **Credits: 3 ***
- PLSC 674 - Analytical Techniques **Credits: 3**

Plus One Additional Course from the Following:

- CRIM 605 - Research Methods **Credits: 3**
- GEOG 612 - Quantitative Techniques in Geography and Regional Planning **Credits: 3**
- GSR 615 - Elements of Research **Credits: 3**

II. Public Administration Core (12 cr.)

Students must complete the following four courses:

*Students pursuing the International Development Administration field specialization should substitute either PLSC 670 - Foreign Policy Studies or PLSC 675 - International Political Economy for PLSC 668 - Public Sector Financial Administration.

- PLSC 570 - The Practice of Public Administration **Credits: 3**
- PLSC 666 - Public Policy Analysis **Credits: 3**
- PLSC 668 - Public Sector Financial Administration **Credits: 3 ***
- PLSC 671 - Seminar in Public Administration **Credits: 3**

III. Field Specializations (15 cr.)

1. Local Government Management

A. Field Core (6 cr.)

- PLSC 554 - Metropolitan Problems **Credits: 3**
- PLSC 555 - Intergovernmental Relations **Credits: 3**

B. Electives (9 cr.)

- GEOG 534 - Political Geography **Credits: 3**
- GEOG 564 - Land Use Policy **Credits: 3**
- ELR 621 - Labor Relations in the Public Sector **Credits: 3**
- PLSC 631 - Human Resource Management in Public Sector **Credits: 3**
or
- ELR 631 - Human Resources Management in the Public Sector **Credits: 3**
- PLSC 678 - The Ethical Dimensions of Leadership **Credits: 3**

2. Human Resources Management

A. Field Core (9 cr.)

- ELR 610 - Employee Rights under Law **Credits: 3**
- PLSC 631 - Human Resource Management in Public Sector **Credits: 3**
or
- ELR 631 - Human Resources Management in the Public Sector **Credits: 3**
- ELR 632 - Compensation Administration **Credits: 3**

B. Electives (6 cr.)

- ELR 526 - Case Studies in Labor-Management Relations **Credits: 3**
- ELR 622 - Discrimination in Employment **Credits: 3**
- ELR 641 - Contract Administration **Credits: 3**
- ELR 751/ ELR 851 - Conflict Resolution **Credits: 3**

3. Planning and Regional Development

A. Field Core (6 cr.)

- GEOG 550 - Introduction to Community Planning **Credits: 3**
- GEOG 552 - Planning Methods **Credits: 3**

B. Electives (6 cr.)

- GEOG 531 - Population Geography **Credits: 3**
- GEOG 554 - Planning Design II **Credits: 3**
- GEOG 558 - Land Use Law **Credits: 3**
- GEOG 564 - Land Use Policy **Credits: 3**
- GEOG 568 - Planning Theory **Credits: 3**
- GEOG 614 - Thought and Philosophy in Geography and Regional Planning **Credits: 3**
- GEOG 623 - Regional Development **Credits: 3**

4. Human Services Administration

A. Field Core (9 cr.)

- SOC 711 - Human Services Administration **Credits: 3**
- SOC 754 - Social Inequality **Credits: 3**
- SOC 756 - Social Change **Credits: 3**

B. Electives (6 cr.)

- SOC 710 - Sociology of Human Services **Credits: 3**
- SOC 721 - Sociology of Health Care **Credits: 3**
- SOC 732 - Addiction and the Family **Credits: 3**
- SOC 757 - Aging and Society **Credits: 3**

5. Criminal Justice Administration

A. Field Core (9 cr.)

- CRIM 600 - Criminological Theory **Credits: 3**
- CRIM 610 - Legal Issues in Criminology **Credits: 3**
- CRIM 632 - Organizational Dynamics within the Criminal Justice System **Credits: 3**

B. Electives (6 cr.)

- CRIM 601 - Proseminar **Credits: 3**
- CRIM 765 - Criminal Justice Planning and Evaluation **Credits: 3**
- CRIM 770 - Seminar in Contemporary Corrections **Credits: 3**

6. International Development Administration

A. Field Core (6 cr.)

- PLSC 522 - International Law and Organizations **Credits: 3**
- PLSC 589 - International Development Strategies **Credits: 3**

B. Electives (9 cr.)

- PLSC 582 - Political Studies: Africa **Credits: 3**
or
- PLSC 583 - Political Studies: Asia **Credits: 3**
or
- PLSC 584 - Political Studies: Middle East **Credits: 3**

- PLSC 675 - International Political Economy **Credits: 3**
- ECON 545 - International Trade **Credits: 3**
- ECON 546 - International Payments **Credits: 3**
- GEOG 531 - Population Geography **Credits: 3**
- GEOG 623 - Regional Development **Credits: 3**
- ELR 621 - Labor Relations in the Public Sector **Credits: 3**
- SOC 710 - Sociology of Human Services **Credits: 3**
- SOC 711 - Human Services Administration **Credits: 3**

IV. Directed Research Requirement (3 cr.)

Students must complete one of the following:

*Only allowed for students who are already employed in a relevant field. Must be approved by Graduate Coordinator.

- PLSC 698 - Political Science Internship **Credits: 3-6**
- PLSC 795 - Thesis **Credits: 3**
- PLSC 699 - Independent Study **Credits: 1-3 ***

Total Program Credit Hours: 36-39 cr.

Sociology, MA

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.

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 **Credits:** 1
- SOC 705 - Research Seminar in Sociology **Credits:** 3
- SOC 762 - Analysis of Social Data **Credits:** 3
- SOC 709 - Contemporary Sociological Theory **Credits:** 3
- SOC 707 - Scholarly Writing in the Social Sciences **Credits:** 3
- SOC 765 - Qualitative Research Methods **Credits:** 3

II. Either:

A. (Thesis Option)

- SOC 795 - Thesis **Credits:** 3-6
- Approved electives **Credits:** 15 *

B. (Non-Thesis Option)

- Approved electives Credits: 21 *
- Portfolio Credits: 0

Note

*No more than 9 semester hours of approved electives may be from outside the department.

Total 37 cr.

Student Affairs in Higher Education, MA

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 **Credits: 3**
- SAHE 624 - Student Affairs Functions in Higher Education **Credits: 3**
- SAHE 625 - Student Development in Higher Education **Credits: 3**
- SAHE 631 - Student Development in Higher Education II **Credits: 3**
- SAHE 735 - Individual and Group Interventions **Credits: 3**

Second Year

- SAHE 731 - Practicum in Student Affairs **Credits: 3** (to be taken twice for a total of six credits)
- SAHE 733 - Management of Organizational Behavior in Higher Education **Credits: 3**
- SAHE 634 - Assessment and Evaluation in Student Affairs **Credits: 3**
- SAHE 737 - College Students in the United States **Credits: 3**
- SAHE 740 - Contemporary Issues in Higher Education **Credits: 3**

II. Thesis or Electives (9 cr.)

A. Thesis Option

- SAHE 795 - Thesis **Credits: 3 or 6**
- GSR 615 - Elements of Research **Credits: 3**
- Electives **Credits: 0 or 3**

B. Non-Thesis Option

- Electives **Credits: 9**

Total 42 cr.

Master of Business Administration

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 schedule of course offerings in the summer.

Prerequisites 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, by completing noncredit modules in related areas offered by reputed 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 and the experience 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.

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

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

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

Admission Criteria

In addition to meeting the admission requirements of the School of Graduate Studies and Research, students seeking admission to the MBA program must have achieved a minimum 2.75 GPA. Students with a 2.75 GPA or above, are asked to submit their transcript and resume. Students who have not earned this standard may be considered based with a holistic evaluation. These students will be assessed based on their academic track record, prior work experience, letters of recommendation and/or GMAT scores, if asked to submit these.

International applicants are required to submit a Test of English as Foreign Language (TOEFL) score report as part of the MBA application unless they are from a country where English is the dominant language, or they earned a degree from an accredited US institution of higher education.

Program Requirements

Core I

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

- ACCT 201 - Accounting Principles I **Credits: 3**
- ECON 122 - Principles of Economics II **Credits: 3**
- FIN 310 - Finance I **Credits: 3**
- MATH 214 - Probability and Statistics **Credits: 3**
- Or successfully complete equivalent proficiency examinations approved by MBA Program Coordinator.

Core II (30 cr.)

Complete 30 credits in the following graduate MBA courses:

A. Required:

- QBUS 601 - Mathematical Modeling and Decision Making **Credits: 3**
- MGMT 613 - Advances in Organizational Behavior and Human Resource Management **Credits: 3**
- ACCT 607 - Accounting for Decision Making **Credits: 3**
- ECON 634 - Managerial Economics **Credits: 3**
- IFMG 640 - Information Systems Management **Credits: 3**
- MKTG 603 - Marketing Analysis and Decision Making **Credits: 3**
- FIN 630 - Corporate Finance and Valuation **Credits: 3**
- MGMT 637 - Operations and Supply Chain Management **Credits: 3**
- MGMT 695 - Strategic Management **Credits: 3**
500 or 600 Level Course by Advisement

B. Optional Concentration Requirements:

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

- *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 additional credits of prescribed coursework as described below and receive a concentration in that area only in conjunction with the

MBA degree. Concentrations are only available on-campus or by online delivery at designated times. The MBA program director will advise the Executive Track students about the available concentrations during the time of admission.

Human Resources Management

Any three of:

- MGMT 500 - Compensation Management **Credits: 3**
- MGMT 501 - Management Development and Training **Credits: 3**
- MGMT 505 - Organizational Staffing **Credits: 3**
- MGMT 581 - Special Topics in Management **Credits: 1-3**
or
- MGMT 681 - Special Topics in Management **Credits: 3**
- MGMT 698 - MBA Internship **Credits: 1.5 or 3**

Information Systems

Any three of:

- IFMG 581 - Special Topics in Information Systems **Credits: 1-3**
- IFMG 560 - Analysis and Logical Design **Credits: 3**
- IFMG 580 - Distributed Business Information Systems **Credits: 3**
- IFMG 663 - Project Management for Information Technology Professionals **Credits: 3**
- MGMT 698 - MBA Internship **Credits: 1.5 or 3**

International Business

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

Any two of:

- MGMT 551 - International Management **Credits: 3**
- MGMT 554 - International Competitiveness **Credits: 3**
- MGMT 698 - MBA Internship **Credits: 1.5 or 3 ***

And one of:

- MKTG 530 - International Marketing **Credits: 3**
- MKTG 606 - Advances in Global Marketing **Credits: 3**
- MKTG 581 - Special Topics in Marketing **Credits: 1-3**
or
- MKTG 681 - Special Topics in Marketing **Credits: 3**
- MKTG 698 - MBA Internship **Credits: 1.5 or 3 ***

Marketing

Any three of:

- MKTG 611 - Marketing Communications **Credits: 3**
- MKTG 521 - Marketing Research **Credits: 3**
- MKTG 534 - Business Logistics: Technical Analyses and Applications **Credits: 3**
- MKTG 539 - Internet Marketing **Credits: 3**

- MKTG 581 - Special Topics in Marketing **Credits: 1-3**
or
- MKTG 681 - Special Topics in Marketing **Credits: 3**

- MKTG 698 - MBA Internship **Credits: 1.5 or 3**
- MKTG 606 - Advances in Global Marketing **Credits: 3**

Professional Accountancy

Any three of:

- ACCT 531 - Auditing **Credits: 3**
- ACCT 521 - Federal Tax I **Credits: 3**
- ACCT 541 - Accounting for Government and Nonprofit Organizations **Credits: 3**
- ACCT 512 - Advanced Cost Accounting **Credits: 3**

Supply Chain Management

Any three of:

- MGMT 537 - Supply Chain Modeling and Analysis **Credits: 3**
- MKTG 534 - Business Logistics: Technical Analyses and Applications **Credits: 3**
- MGMT 534 - Industrial Quality: Statistical Tools and Management **Credits: 3**

- MGMT 581 - Special Topics in Management **Credits: 1-3**
or
- MGMT 681 - Special Topics in Management **Credits: 3**

- MGMT 698 - MBA Internship **Credits: 1.5 or 3**

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.

Business Administration/Executive, MBA

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 (2.0 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, two 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)
- Basic Statistics (for QBUS 601)
- Micro Economics (for ECON 634)
- Basic Finance (for FIN 630)

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 - Mathematical Modeling and Decision Making **Credits: 3**
- ECON 634 - Managerial Economics **Credits: 3**

- MGMT 650 - International Business **Credits: 3**
or
- MKTG 650 - International Business **Credits: 3**

- BTST 670 - Organizational Communication **Credits: 3**
- ACCT 607 - Accounting for Decision Making **Credits: 3**
- MGMT 613 - Advances in Organizational Behavior and Human Resource Management **Credits: 3**
- FIN 630 - Corporate Finance and Valuation **Credits: 3**
- MKTG 603 - Marketing Analysis and Decision Making **Credits: 3**
- MGMT 637 - Operations and Supply Chain Management **Credits: 3**
- IFMG 640 - Information Systems Management **Credits: 3**
- BLAW 633 - Case Problems in Business Law **Credits: 3**
- MGMT 695 - Strategic Management **Credits: 3**

Students seeking to specialize can take six to nine additional credits of prescribed course work and receive a concentration in the areas described under the MBA program. Concentrations are available on the IUP campus and /or

via online delivery. The MBA program director will advise the Executive Track students about the available concentrations during the time of admission.

Master of Education

Business Education with Initial Certification, MEd

This 30-credit program is structured to address the educational needs of several types of graduate students who enter and proceed through the program. The program's integrated curriculum is designed to prepare educators to be more effective and innovative in the classroom, in the school systems, and in their own communities. This program is designed to teach in a hybrid and online format, allowing for flexibility for professionals seeking a master's degree.

This program is designed for individuals who seek to become K-12 certified in Business Education. The program requires a culminating event of student teaching for 14 weeks in a K-12 school system, completion of all PDE required tests, and successful completion of all classes with a 3.0 GPA.

Pre-requisites for entering this program: Include 6cr. Math classes, 6cr. English classes (current pre-requisite) at the undergraduate level. Additionally, 12 credit hours completed in undergraduate or graduate business-related curriculum in the following manner: 3 credit hours business math/finance/accounting/business statistics; 3 credit hours marketing/management; an additional 6 credit from curriculum covered by topics of: economics/ technology/ programming/information sciences.

MEDU Core Classes (15cr)

- MEDU 761 - Connecting Community and School **Credits: 3**
- MEDU 762 - Teaching Academically-Diverse Learners **Credits: 3**
- MEDU 763 - Educational Research and Practical Application **Credits: 3**
- MEDU 764 - Educational Technology for Today and Tomorrow **Credits: 3**
- MEDU 765 - Curriculum, Assessment, and Reflection **Credits: 3**

Business Education Courses (15cr)

- EDSP 747 - Psychology of Human Development **Credits: 3**
- BTED 511 - Methods in Business and Information Technology I **Credits: 3**
- BTED 512 - Methods in Business and Information Technology II **Credits: 3**
- BTED 695 - Professional Semester-Student Teaching **Credits: 12**
(6 credits needed)

Career and Technical Administration, MEd

This 33-credit program is structured to address the educational needs of several types of graduate students who enter and proceed through the program. The integrated curriculum is designed to prepare individuals to assume an administrative role at a career and technical center (CTC) where they are

responsible for long-range planning, promoting community involvement, providing for sound business and financial management, and providing facilities and state-of-the-art equipment.

Completion of this program will provide individuals with both Pennsylvania certification as a career and technical administrator and the master's credential. It is offered in a blended format with most of the instruction completed online and utilizing video conferencing, allowing for flexibility for professionals seeking a master's degree.

The program includes 500 hours of authentic simulation and field or internship experiences which are embedded throughout the program. This requires students to work closely with a CTC administrator to complete the experiences or course assignments in a real-life setting. This approach allows students to gain valuable field experience every step of the way, all while learning the related theory.

This program is designed to be completed in two years. Completion of all PDE required tests and successful completion of all classes with a 3.0 GPA are also required.

Admission Criteria:

- Meet the admissions requirements of the School of Graduate Studies and Research.
- Letter of support from career and technical administrator indicating willingness to assist candidate with field experiences.
- Resume indicating a minimum of three years of relevant professional experience in an educational setting that is related to the instructional process.
- A copy of applicant's instructional certificate.

MEDU Core Classes (15cr)

- MEDU 761 - Connecting Community and School **Credits: 3**
- MEDU 762 - Teaching Academically-Diverse Learners **Credits: 3**
- MEDU 763 - Educational Research and Practical Application **Credits: 3**
- MEDU 764 - Educational Technology for Today and Tomorrow **Credits: 3**
- MEDU 765 - Curriculum, Assessment, and Reflection **Credits: 3**

Vocational Administrative Education Courses (18cr)

- VOED 610 - Personnel & Student Management in Career and Technical Education **Credits: 3**
- VOED 611 - School Code and Policy in Career and Technical Education **Credits: 3**
- VOED 612 - Fiscal Responsibilities and Financial Oversight in Career and Technical Education **Credits: 3**
- VOED 613 - School Law and Legal Responsibilities in Career and Technical Education **Credits: 3**
- VOED 614 - Curriculum Development and Analysis in Career and Technical Education **Credits: 3**
- VOED 615 - Administrative Leadership in Career and Technical Education **Credits: 3**

Developmental Education, MEd

This online program uses an integrated curriculum to prepare educators to be more effective and innovative in the classroom. The Developmental Education track prepares individuals to work with post-secondary learners served by developmental education programs in universities, community colleges, and other educational institutions or entities. Successful graduates will be equipped with the ability, knowledge, and skills to apply research-based theory to instructional and leadership practices in the field of developmental education, as defined by nationally recognized organizations, such as the National Association for Student Success and the National Center for Developmental Education. Coursework is centered on the following:

- Understanding the historical perspective of the need for developmental education
- Theories and research in student development
- Strategies for effective teaching, advising, and assessment of learners in developmental programs
- Designing and implementing developmental programs

MEDU Core Classes (15cr)

- MEDU 761 - Connecting Community and School **Credits: 3**
- MEDU 762 - Teaching Academically-Diverse Learners **Credits: 3**
- MEDU 763 - Educational Research and Practical Application **Credits: 3**
- MEDU 764 - Educational Technology for Today and Tomorrow **Credits: 3**
- MEDU 765 - Curriculum, Assessment, and Reflection **Credits: 3**

Developmental Education Courses (15cr)

- DVST 600 - Principles of Developmental Education **Credits: 3**
- DVST 605 - Foundations of Academic Advising **Credits: 3**
- DVST 700 - Curriculum Design in Developmental Education **Credits: 3**
- DVST 710 - Strategies for Teaching Developmental Students **Credits: 3**
- DVST 720 - Critical Issues in Developmental Education **Credits: 3**

Education, MEd

The MEDU is an online program that prepares students to assume leadership roles in contemporary school communities. In order to meet individual professional goals, students select a specialization area to build and apply practical expertise.

Students complete five, three-credit courses (15 credits) of core coursework followed by 15-18 credits in one of four specializations.

MEDU Core Classes (15cr)

- MEDU 761 - Connecting Community and School **Credits: 3**
- MEDU 762 - Teaching Academically-Diverse Learners **Credits: 3**
- MEDU 763 - Educational Research and Practical Application **Credits: 3**
- MEDU 764 - Educational Technology for Today and Tomorrow **Credits: 3**
- MEDU 765 - Curriculum, Assessment, and Reflection **Credits: 3**

MEDU Specializations

Administration and Leadership PK-12 Principal Certification, MEd

Business Education with Initial Certification, MEd

Career and Technical Administration, MEd

Developmental Education, MEd

Instruction and Learning, MEd

Educational Psychology, MEd

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

- EDSP 704 - Advanced Educational Psychology **Credits: 3 ***
- EDSP 745 - Counseling for School Psychologists **Credits: 3 ***
- EDSP 755 - Practicum in School Psychology **Credits: 1-3 ***
- EDSP 746 - Learning and Instruction **Credits: 3 ***
- EDSP 748 - Advanced Studies in Behavioral Problems **Credits: 3 ***
- EDSP 781 - Special Topics **Credits: 3 ***
- EDSP 789 - Advanced Psychometric Theory **Credits: 3 ***
- EDSP 711 - Introduction to School Psychology **Credits: 3 ***
- EDSP 813 - Academic Assessment **Credits: 3 ***
- EDEX 650 - Exceptional Children and Youth **Credits: 3**
- GSR 615 - Elements of Research **Credits: 3**
- --- Approved elective **Credits: 3 ****

Note

*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.

Total 36 cr.

Health and Physical Education, MEd

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, or (3) Adapted Physical Activity.

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.

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:

- 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 **Credits: 3**
- KHSS 634 - Current Literature in Health, Fitness, and Sport **Credits: 3**
- KHSS 640 - Research Methods for Health, Sport, and Physical Activity **Credits: 3**
- KHSS 680 - Seminar **Credits: 3**

II. Tracks

A. Teacher Certification* (24 cr.)

*Students completing Track A: Teacher Certification do not require elective or thesis credits. Those students follow Professional Practice requirements outlined below.

- KHSS 526 - Health Science Instruction **Credits: 3**
- KHSS 615 - Curriculum Design and Assessment in Health and Physical Education **Credits: 3**
- KHSS 631 - Motor Learning **Credits: 3**
- KHSS 645 - Advanced Teaching Techniques in Physical Education **Credits: 3**
- KHSS 655 - Health and Fitness for Elementary School Children **Credits: 3**
- KHSS 670 - Advanced Seminar in Adapted Physical Education **Credits: 3**
- KHSS 675 - Fitness Technology for Health and Physical Educators **Credits: 3**
- EDEX 650 - Exceptional Children and Youth **Credits: 3**
or
- An approved course in Special Education

B. Community Health Education (12 cr.)

- KHSS 520 - Health Education and Promotion at the Workplace **Credits: 3**
- NURS 610 - Health Promotion and Social Issues **Credits: 3**
- HSAD 605 - Epidemiology in Health Services Administration **Credits: 3**
or
- KHSS 672 - Epidemiology of Physical Activity **Credits: 3**
- KHSS 698 - Internship **Credits: 3-6**

C. Adapted Physical Activity (12 cr.)

- EDEX 650 - Exceptional Children and Youth **Credits: 3**
- KHSS 537 - Coaching Disability Sport **Credits: 3**
- KHSS 631 - Motor Learning **Credits: 3**
- KHSS 698 - Internship **Credits: 3-6**

III. Electives and/or Thesis (Choose One)

A. Thesis Option (9 cr.)

- KHSS 795 - Thesis **Credits:** 3-6
- Electives in KHSS or related fields. **Credits:** 3

B. Non-Thesis Option (12 cr.)

- Electives in KHSS or related fields. **Credits:** 3

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.

Total 33-36 cr.

Instruction and Learning, MEd

The 30-credit M.Ed. in Education, Instruction and Learning, specialization is designed for K-12 teachers and other professionals who are seeking an advanced degree in education. Coursework will target human learning and development, the effective implementation of educational technologies, working with diverse populations of learners, assessment and assessment-informed instruction, and school law and negotiations. This program is fully online and can be completed in an academic year (i.e., Fall, Spring, and Summer).

Core (15 credits)

- MEDU 761 - Connecting Community and School **Credits: 3**
- MEDU 762 - Teaching Academically-Diverse Learners **Credits: 3**

- MEDU 763 - Educational Research and Practical Application **Credits: 3**
- * GSR 615 - Elements of Research **Credits: 3** (replacement)
- * LTCY 698 - Analysis of Research in Literacy **Credits: 3** (replacement)

- MEDU 764 - Educational Technology for Today and Tomorrow **Credits: 3**
- MEDU 765 - Curriculum, Assessment, and Reflection **Credits: 3**

Controlled Electives (15 credits)

Human Learning and Development (3 credits)

- EDSP 747 - Psychology of Human Development **Credits: 3**
- CURR 910 - Advanced Topics in Human Development and Learning **Credits: 3**
- ALS 810 - Advanced Topics in Human Development and Learning **Credits: 3**

Assessment (3 credits)

- EDEX 752 - Assessment of Persons with Disabilities **Credits: 3**
- EDSP 577 - Assessment of Student Learning **Credits: 3**
- ALS 830 - Analysis of Effective Instruction **Credits: 3**

Instructional Design (3 credits)

- ETIT 600 - Introduction to Instructional Design **Credits: 3**
- ETIT 610 - Learning Management Systems **Credits: 3**
- ETIT 617 - Distance Education Technology **Credits: 3**

Literacy (3 credits)

- LTCY 600 - Foundations of Literacy Instruction **Credits: 3**
- LTCY 607 - Diverse Texts for Literacy Instruction **Credits: 3**
- LTCY 644 - Writing Development and Instruction **Credits: 3**
- LTCY 702 - Literacy Instruction Across Disciplines **Credits: 3**

Specialized Emphasis/Free Elective (3 credits)

- ELR 751 - Conflict Resolution **Credits: 3**
- ALS 825 - Critical Analysis of Issues in Education **Credits: 3**
- CURR 925 - Critical Analysis of Issues in Education **Credits: 3**

Total Degree Requirements: 30

*Note: Students must complete all five core courses, and one 3-credit course under each of the five categories in the controlled electives: human learning and development, assessment, instructional design, literacy, and specialized emphasis area.

Literacy, MEd

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 credits. Students may also receive a Reading Specialist Certification by completion of twenty-seven credits within the master's program, opting out of the research course, LTCY 698.

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 (27 cr.)

- LTCY 600 - Foundations of Literacy Instruction **Credits: 3**
- LTCY 607 - Diverse Texts for Literacy Instruction **Credits: 3**
- LTCY 635 - Differentiated Literacy Instruction to Meet the Needs of All Learners **Credits: 3**
- LTCY 644 - Writing Development and Instruction **Credits: 3**
- LTCY 701 - Assessment and Acceleration **Credits: 3**
- LTCY 702 - Literacy Instruction Across Disciplines **Credits: 3**
- LTCY 705 - Literacy Leadership and Collaboration **Credits: 3**
- LTCY 770 - Practicum and Seminar for Reading Specialists I **Credits: 3**
- LTCY 698 - Analysis of Research in Literacy **Credits: 3**

B. Electives 3 cr.

*Candidates must seek permission from the Literacy program coordinator before taking an elective course. Other current graduate courses that address literacy, learning, or reading/writing could be

applicable as an elective. Students who received initial certification after September 2007 and before 2013 must select an EDEX elective

- ENGL 518 - Young Adult Literature **Credits:** 3
- EDEX 558 - Transition Assessment and Planning for Youth with Disabilities **Credits:** 3
- EDEX 560 - Family Perspectives on Disability **Credits:** 3
- EDSP 747 - Psychology of Human Development **Credits:** 3
- EDEX 752 - Assessment of Persons with Disabilities **Credits:** 3
- EDEX 753 - Research Seminar in Special Education **Credits:** 3
- EDEX 754 - Advanced Instructional Design in Special Education **Credits:** 3
- EDEX 755 - Professional Collaboration and Team Building for Special Educators **Credits:** 3
- LTCY 648 - Creativity and the Elementary School Child **Credits:** 3
- LTCY 697 - Seminar in Special Problems in Reading **Credits:** 3
- LTCY 699 - Independent Study in Reading Education **Credits:** 1-3

Total 30 cr.

Mathematics Education, MEd

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 specializations – one specialization in Secondary Mathematics Education and one specialization in Elementary and Middle School Mathematics Education.

MEd in Mathematics Education

I. Education and Educational Research (6 cr.)

- MAED 660 - Survey of Research in Mathematics Education **Credits:** 3

One course from:

- EDEX 569 - Education of Persons with Emotional/Behavioral Disorders, Learning Disabilities, or Brain Injury **Credits:** 3
- EDEX 578 - Education of Persons with Intellectual/Developmental Disabilities and Physical/Multiple Disabilities **Credits:** 3
- EDEX 650 - Exceptional Children and Youth **Credits:** 3
- EDEX 750 - Assessment for Instructional Planning for Students with Autism Spectrum Disorders **Credits:** 3

- EDEX 751 - Instructional Interventions and Methods for Students with Autism Spectrum Disorder **Credits: 3**
- EDEX 752 - Assessment of Persons with Disabilities **Credits: 3**
- EDSP 577 - Assessment of Student Learning **Credits: 3**
- EDSP 704 - Advanced Educational Psychology **Credits: 3**
- EDSP 746 - Learning and Instruction **Credits: 3**
- EDSP 747 - Psychology of Human Development **Credits: 3**
- EDSP 748 - Advanced Studies in Behavioral Problems **Credits: 3**

II. Mathematics Education Core (9 cr.)

- MAED 650 - Curriculum and Instruction in Mathematics Education **Credits: 3**
- MAED 652 - Differentiated Instruction in Mathematics Education **Credits: 3**
- MAED 654 - Teaching of Problem Solving in Mathematics Education **Credits: 3**

III. Mathematics Education Electives (9 cr.)

Select two courses from:

- MAED 559 - Technology-Related Topics in Mathematics **Credits: 3**
- MAED 616 - Writing in Mathematics Education **Credits: 3**
- MAED 618 - Mathematics and Cognition **Credits: 3**
- MAED 681 - Special Topics **Credits: 3**
- MAED 698 - Supervised Internship **Credits: 3**
- MAED 795 - Thesis **Credits: 3**
- A course from Category I or Category IV **Credits: 3**

IV. Mathematics Education Content (12 cr)

Students in the Elementary and Middle Level Specialization select from Option I.

Students in the Secondary Mathematics Specialization select from Option II.

Option I

- MAED 517 - Probability and Statistics for Elementary/Middle Level Teachers **Credits: 3**
- MAED 520 - Patterns and Functions for Elementary/Middle Level Teachers **Credits: 3**
- MAED 556 - Geometry for Elementary/Middle Level Teachers **Credits: 3**
- MAED 561 - Discrete Mathematics for Elementary/Middle Level Teachers **Credits: 3**
- MAED 571 - Algebra for Elementary/Middle Level Teachers **Credits: 3**
- MAED 617 - Teaching Proportional Reasoning **Credits: 3**

Option II

- MAED 611 - Algebra for Secondary Teachers **Credits: 3**
- MAED 612 - Geometry for Secondary Teachers **Credits: 3**
- MAED 613 - Probability and Statistics for Secondary Teachers **Credits: 3**
- MAED 614 - Pre-calculus and Discrete Math for Secondary Teachers **Credits: 3**
- MAED 617 - Teaching Proportional Reasoning **Credits: 3**

- MATH 650 - Themes in the History of Mathematics **Credits: 3**

Total 36 cr.

School Counseling, MEd

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 and practica at the elementary schools and secondary school levels, as well as 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 Graduate Coordinator to determine these requirements. Applicants are required to attend an admissions workshop as the final step in the admissions process and should contact the Graduate Coordinator to obtain deadlines for completed applications to be received by the School of Graduate Studies and Research.

Program Requirements

- GSR 615 - Elements of Research **Credits: 3**
- COUN 613 - Counseling Children **Credits: 3**
- COUN 615 - Counseling Across the Life Span **Credits: 3**
- COUN 617 - Basic Counseling Skills **Credits: 3**
- COUN 618 - Multicultural and Diversity Issues in Counseling **Credits: 3**
- COUN 621 - Introduction to Professional School Counseling **Credits: 3**
- COUN 624 - Assessment Procedures for School Counselors **Credits: 3**
- COUN 628 - Management of a Professional School Counseling Program **Credits: 3**
- COUN 636 - Career Counseling **Credits: 3**
- COUN 637 - Counseling Theories **Credits: 3**
- COUN 639 - Group Counseling Theory and Experience **Credits: 3**
- COUN 659 - Secondary School Counseling Practicum **Credits: 3**
- COUN 667 - Elementary School Counseling Practicum **Credits: 3**

- COUN 672 - Counseling and Consulting Within Systems **Credits:** 3
- COUN 677 - Crisis and Addiction Counseling **Credits:** 3
- COUN 682 - Counseling Students/Clients with Disabilities **Credits:**
- COUN 720 - Professional Orientation and Ethical Practice in Counseling **Credits:** 3
- COUN 755 - Field Experience **Credits:** 6
- Elective **Credits:** 3

Total 60 cr.

For current students, an annual evaluation of 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.

Special Education, MEd

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/Behavioral Disorders, Learning Disabilities, or Brain Injury **Credits: 3**
 - EDEX 578 - Education of Persons with Intellectual/Developmental Disabilities and Physical/Multiple Disabilities **Credits: 3**
 - EDEX 558 - Transition Assessment and Planning for Youth with Disabilities **Credits: 3**
 - EDEX 752 - Assessment of Persons with Disabilities **Credits: 3**
 - EDEX 754 - Advanced Instructional Design in Special Education **Credits: 3**
 - EDEX 755 - Professional Collaboration and Team Building for Special Educators **Credits: 3**
 - EDEX 785 - Practicum and Internship **Credits: 3-9**
 - GSR 615 - Elements of Research **Credits: 3**
 - Electives **Credits: 3**
 - Electives **Credits: 3**
 - Electives **Credits: 3**
 - Electives **Credits: 3**
- or
- EDEX 795 - Thesis **Credits: 3 (optional)**

Total Required (36 cr.)

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

- EDEX 515 - Preschool Education for Children with Disabilities **Credits: 3**
 - EDEX 560 - Family Perspectives on Disability **Credits: 3**
 - EDEX 753 - Research Seminar in Special Education **Credits: 3**
 - EDSP 704 - Advanced Educational Psychology **Credits: 3**
 - EDSP 746 - Learning and Instruction **Credits: 3**
 - EDSP 747 - Psychology of Human Development **Credits: 3**
 - COUN 629 - Group Procedure (child) **Credits: 3**
 - COUN 639 - Group Counseling Theory and Experience **Credits: 3**
- 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/Behavioral Disorders, Learning Disabilities, or Brain Injury **Credits: 3**
- EDEX 578 - Education of Persons with Intellectual/Developmental Disabilities and Physical/Multiple Disabilities **Credits: 3**
- EDEX 752 - Assessment of Persons with Disabilities **Credits: 3**
- EDEX 754 - Advanced Instructional Design in Special Education **Credits: 3**
- EDEX 785 - Practicum and Internship **Credits: 3-9 (severe)**
- EDEX 558 - Transition Assessment and Planning for Youth with Disabilities **Credits: 3 (required for 7-12 certification)**
or
- EDEX 755 - Professional Collaboration and Team Building for Special Educators **Credits: 3 (required for PreK-8 certification)**

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 **Credits: 3**
- EDEX 752 - Assessment of Persons with Disabilities **Credits: 3**
- EDEX 753 - Research Seminar in Special Education **Credits: 3**
- EDEX 754 - Advanced Instructional Design in Special Education **Credits: 3**
- EDEX 755 - Professional Collaboration and Team Building for Special Educators **Credits: 3**
- EDEX 785 - Practicum and Internship **Credits: 3-9**
- EDEX 560 - Family Perspectives on Disability **Credits: 3**

- GSR 615 - Elements of Research **Credits: 3**
Electives Credits: 3
Electives Credits: 3
or
- EDEX 795 - Thesis **Credits: 3**

Total Required (30 cr.)

Note: Students may choose electives from:

- EDSP 704 - Advanced Educational Psychology **Credits: 3**
- EDSP 746 - Learning and Instruction **Credits: 3**
- EDSP 747 - Psychology of Human Development **Credits: 3**
- EDSP 748 - Advanced Studies in Behavioral Problems **Credits: 3**
- COUN 629 - Group Procedure (child) **Credits: 3**
- COUN 639 - Group Counseling Theory and Experience **Credits: 3**
- EDEX 515 - Preschool Education for Children with Disabilities **Credits: 3**
- or other relevant courses with approval of the program coordinator.

Master of Science

Accounting and Finance, MS

The purpose of this program is to provide the students with advanced education in the areas of accounting and finance to help them earn the academic credits necessary for certifications in their respective disciplines and to better prepare them for successful completion of their respective comprehensive exams. Of the eighteen credits from the business core; Accounting majors must select at least three courses with the finance prefix and no more than a total fifteen credits at the 500 level. Of the eighteen credits from the business core; Finance majors must select at least three courses with the accounting prefix and no more than a total fifteen credits at the 500 level. Students Entering the Finance Track must have completed Intermediate Accounting I and II.

Core Courses: 18 credits

Students may choose six courses from the following list:

- ACCT 512 - Advanced Cost Accounting **Credits: 3**
- ACCT 522 - Federal Tax II **Credits: 3**
- ACCT 531 - Auditing **Credits: 3**
- ACCT 532 - Forensic and Internal Accounting **Credits: 3**
- ACCT 541 - Accounting for Government and Nonprofit Organizations **Credits: 3**
- ACCT 561 - Accounting Systems **Credits: 3**
- ACCT 607 - Accounting for Decision Making **Credits: 3**
- ACCT 698 - MBA Internship **Credits: 1.5 or 3**

- FIN 510 - Financial Institutions and Markets **Credits:** 3
- FIN 520 - Investment Analysis **Credits:** 3
- FIN 524 - International Financial Management **Credits:** 3
- FIN 525 - Financial Derivatives **Credits:** 3

- FIN 630 - Corporate Finance and Valuation **Credits:** 3
- FIN 632 - Seminar in Finance **Credits:** 3
- FIN 635 - Principles of Investments in Securities **Credits:** 3
- FIN 698 - MBA Internship **Credits:** 1.5 or 3

SELECT ONE TRACK:

Accounting (CPA certification) Track Credits: 12

- ACCT 610 Auditing and Attestation *
- ACCT 611 Financial Accounting and Reporting *
- ACCT 612 Regulation *
- ACCT 613 Business Environment and Concepts*

Finance (financial certification) Track Credits: 12

- FIN 524 - International Financial Management **Credits:** 3
- FIN 525 - Financial Derivatives **Credits:** 3
- FIN 632 - Seminar in Finance **Credits:** 3
- FIN 635 - Principles of Investments in Securities **Credits:** 3

Total Credits: 30

*course currently under development

Applied Mathematics, MS

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.

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, computer science and statistics. The department houses its own computer facilities with which faculty

and students engage in activities such as simulation and statistical analysis. Students utilize quantitative modeling techniques, including probability, statistics, optimization, and simulation, to the solution of data-driven, real-world problems. 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.

The **Data Science Specialization** provides the opportunity to gain skills on designing, analyzing, and utilizing complex databases to provide real world, real-time solutions that incorporate predictive analytics and forecasting to improve decision making.

The **Community College Instruction Specialization** combines the practical focus of the Applied Mathematics program with an emphasis on teaching the techniques necessary to succeed as a faculty member in two-year higher education institutions. Instructors at Pennsylvania community colleges must have a master's degree with at least 18 graduate credits in the discipline they teach. Students in this specialization will receive a master's degree in Applied Mathematics while also learning valuable teaching techniques, setting them on a path to success.

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.)

*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.)

- MATH 545 - Deterministic Models in Operations Research **Credits:** 3
- MATH 546 - Probabilistic Models in Operations Research **Credits:** 3
- MATH 563 - Mathematical Statistics I **Credits:** 3
- MATH 564 - Mathematical Statistics II **Credits:** 3
- MATH 625 - Analysis for Applied Mathematics **Credits:** 3

II. Controlled Electives† (15 cr.)

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

- MATH 523 - Complex Variables I **Credits:** 3
- MATH 547 - Modeling and Simulation **Credits:** 3
- MATH 551 - Numerical Methods for Supercomputers **Credits:** 3
- MATH 640 - Numerical Mathematics **Credits:** 3
- MATH 641 - Ordinary and Partial Differential Equations **Credits:** 3
- MATH 643 - Graphs, Networks, and Combinatorics **Credits:** 3

- MATH 645 - Nonlinear Programming Models **Credits:** 3
- MATH 647 - Advanced Simulation **Credits:** 3
- MATH 665 - Applied Regression Analysis and Design of Experiments **Credits:** 3
- MATH 667 - Applied Statistical Methods **Credits:** 3

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 Requirement (3-6 cr.)

Option I

- MATH 795 - Thesis **Credits:** 3

Option II

- MATH 698 - Internship **Credits:** 1-6

Total 33-36 cr.

Specialization for Data Science

I. Core Courses* (21 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.)

- MATH 516 - Data Science Fundamentals **Credits:** 3
- MATH 545 - Deterministic Models in Operations Research **Credits:** 3
- MATH 546 - Probabilistic Models in Operations Research **Credits:** 3
- MATH 563 - Mathematical Statistics I **Credits:** 3
- MATH 564 - Mathematical Statistics II **Credits:** 3
- MATH 618 - Data Science Theory & Application **Credits:** 3
- MATH 625 - Analysis for Applied Mathematics **Credits:** 3

II. Controlled Electives (9 cr.)

† At least 9 cr. must be at the 600 level.

**Data Science focused students should consider selecting MATH 665 and MATH 667, and one of MATH 645, and/or MATH 647

- MATH 640 - Numerical Mathematics **Credits:** 3
- MATH 641 - Ordinary and Partial Differential Equations **Credits:** 3
- MATH 643 - Graphs, Networks, and Combinatorics **Credits:** 3
- MATH 645 - Nonlinear Programming Models **Credits:** 3
- MATH 647 - Advanced Simulation **Credits:** 3
- MATH 665 - Applied Regression Analysis and Design of Experiments **Credits:** 3
- MATH 667 - Applied Statistical Methods **Credits:** 3

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 **Credits:** 3

Option II

- MATH 698 - Internship **Credits:** 1-6

Total 33-36 cr.

Specialization for Community College Instruction

I. Core Courses (15 cr.)

(Same as the MS in Applied Mathematics)

*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.)

- MATH 545 - Deterministic Models in Operations Research **Credits:** 3
- MATH 546 - Probabilistic Models in Operations Research **Credits:** 3
- MATH 563 - Mathematical Statistics I **Credits:** 3
- MATH 564 - Mathematical Statistics II **Credits:** 3

- MATH 625 - Analysis for Applied Mathematics **Credits:** 3

II. Controlled Electives (15 credits)

Choose two courses (6cr.)

- MAED 611 - Algebra for Secondary Teachers **Credits:** 3
- MAED 613 - Probability and Statistics for Secondary Teachers **Credits:** 3
- MAED 614 - Pre-calculus and Discrete Math for Secondary Teachers **Credits:** 3
- MAED 654 - Teaching of Problem Solving in Mathematics Education **Credits:** 3

Choose two courses (6cr.)

- MATH 640 - Numerical Mathematics **Credits:** 3
- MATH 641 - Ordinary and Partial Differential Equations **Credits:** 3
- MATH 643 - Graphs, Networks, and Combinatorics **Credits:** 3
- MATH 645 - Nonlinear Programming Models **Credits:** 3
- MATH 665 - Applied Regression Analysis and Design of Experiments **Credits:** 3
- MATH 667 - Applied Statistical Methods **Credits:** 3

Choose one course (3cr.)

- MATH 521 - Advanced Calculus I **Credits:** 3
- MATH 523 - Complex Variables I **Credits:** 3
- MATH 527 - Topology **Credits:** 3
- MATH 553 - Theory of Numbers **Credits:** 3
- MATH 576 - Abstract Algebra I **Credits:** 3

III. Research Requirements (3-6cr.)

Option I

- MATH 795 - Thesis **Credits:** 3

Option II

- MATH 698 - Internship **Credits:** 1-6

Total 33-36 cr.

Athletic Training, MS

Professional Athletic Training education programs use a competency-based approach in both the classroom and clinical settings. Using a medical-based education model, Athletic Training students are educated to provide comprehensive client/patient care in five domains of clinical practice: prevention; clinical evaluation and diagnosis; immediate and emergency care; treatment and rehabilitation; and organization and professional health and well-being. The educational requirements for CAATE-accredited Athletic Training education programs include acquisition of knowledge, skills, and clinical abilities along with a broad scope of foundational behaviors of professional practice. Students complete an extensive clinical learning requirement that is embodied in the clinical integration proficiencies (professional, practice-oriented outcomes) as identified in the Standards for Accreditation of Professional Athletic Training Programs. Students will receive formal instruction in the following specific subject matter areas identified in the Standards: Core Competencies; Patient/Client Care; Prevention, Health Promotion and Wellness and Health Care Administration.

The Masters of Science in Athletic Training program prepares students in a cohort-based model to serve as health care professionals who collaborate with physicians to provide preventative services, emergency care, clinical diagnosis, therapeutic intervention and rehabilitation of injuries and medical conditions. The program has both an academic and a clinical education component. The clinical education component entails a series of sequential laboratory courses and a minimum of four semesters of practicum coursework that includes supervised field experiences with the IUP Department of Athletics and affiliated clinical sites (sports medicine clinics, physicians' offices/hospitals, high schools, and additional collegiate settings).

Additionally, program retention, completion, and Board of Certification examination endorsement are contingent upon students passing comprehensive examinations including a mock/practice certification exam. Students must obtain the Athletic Training Program Overview document from the department website for full details regarding program progression, mediation, retention, and Board of Certification examination endorsement.

First Masters of Science in Athletic Training Cohort begins in June 2020.

Proposed Requirements:

In addition to meeting IUP's School of Graduate Studies and Research's admission requirements, students must meet the following entrance criteria:

- Undergraduate GPA of 3.0 and completion of the following prerequisite coursework with a C or better:
 - Biology (with lab)
 - Chemistry (with lab)
 - Human Anatomy (with lab)
 - Human Physiology (with lab)

- Exercise Physiology
- Kinesiology/Biomechanics
- Nutrition
- Physics (with lab)
- Psychology
- Statistics
- Minimum of 40 hours of direct clinical observation under the guidance of a Certified Athletic Trainer in a minimum of two different settings. A letter of verification is required from each supervising Certified Athletic Trainer.
- Current Emergency Cardiac Care (ECC) certification. Acceptable ECC providers are those adhering to the most current International Guidelines for Cardiopulmonary Resuscitation and Emergency Cardiac Care.
- Completion of an interview with the program director and faculty (as needed).
- Additional details and required documentation (clearances, Tuberculin (TB) skin test, liability insurance) are outlined in the Athletic Training Program Overview which is available on the department website.

Additionally, students enrolled in an IUP undergraduate program who take all of the aforementioned prerequisite coursework may be eligible for early admission into the Masters of Science in Athletic Training program. Please refer to IUP's School of Graduate Studies and Research's guidelines for Early Admission to Graduate Program Policy.

Degree Requirements:

- BIOL 509 - Pharmacology Principles and Applications **Credits: 3**
- KHSS 501 - Foundations of Athletic Training **Credits: 3**
- KHSS 525 - Risk Management and Acute Care in Athletic Training **Credits: 3**
- KHSS 545 - Pathology and Assessment in Athletic Training I **Credits: 4**
- KHSS 565 - Pathology and Assessment in Athletic Training II **Credits: 4**
- KHSS 575 - Pathology and Assessment in Athletic Training III **Credits: 4**
- KHSS 576 - Athletic Training Program Clinical Practicum I **Credits: 3**
- KHSS 577 - Athletic Training Clinical Practicum II **Credits: 3**
- KHSS 580 - Organization and Administration in Athletic Training **Credits: 3**
- KHSS 585 - Assessment and Management of General Medical Conditions in Athletic Training **Credits: 4**
- KHSS 634 - Current Literature in Health, Fitness, and Sport **Credits: 3**
- KHSS 640 - Research Methods for Health, Sport, and Physical Activity **Credits: 3**
- KHSS 646 - Rehabilitation Methods and Therapeutic Exercises for Orthopedic Injuries **Credits: 4**
- KHSS 648 - Therapeutic Modalities **Credits: 4**
- KHSS 676 - Athletic Training Program Clinical Practicum III **Credits: 6**
- KHSS 677 - Athletic Training Clinical Practicum IV **Credits: 3**
- KHSS 685 - Professional Issues in Athletic Training **Credits: 3**

Total Degree Requirements: 60

Biology, MS

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 nonthesis 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.)

- BIOL 602 - Biometry **Credits:** 3
- BIOL 611 - Biology Seminar I **Credits:** 1
- BIOL 612 - Biology Seminar II **Credits:** 1
- BIOL 795 - Thesis **Credits:** 1-6

Non-thesis option (8 cr.)

- BIOL 602 - Biometry **Credits:** 3
- BIOL 611 - Biology Seminar I **Credits:** 1
- BIOL 612 - Biology Seminar II **Credits:** 1
- BIOL 699 - Independent Studies **Credits:** 3

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 Studies. 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 broadbased 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.

Total 32-35 cr.

Food and Nutrition, MS (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 may also opt to select a specialization track: 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.

The department also offers an accredited dietetic internship (current) that is transitioning to a Dietitian-Nutritionist Program (to begin on June 1, 2021) for those students interested in becoming a registered dietitian-nutritionist. Admission to the DNP requires a separate application. Information can be obtained by contacting the Program Director for the Dietitian-Nutritionist Program (DNP). Students enrolled in the two-year DNP program will earn their master's degree as well as earn eligibility to sit for the national examination for registered dietitian-nutritionists upon successful program completion. The DNP is open to students who have a bachelor's degree in dietetics and/or nutrition, or closely related degree. The DNP is accredited to admit 18 students across two tracks, the in-resident track and the distance track. The DNP provides students with practice skills in clinical areas, community nutrition, and food service, as well as exposes the student to many populations, disease states, and conditions. All curriculum-based master's courses are 100% online with both synchronous and asynchronous interactions with faculty and peers. The practicum-based courses allow students to work directly with field professionals at on- and off-site locations to practice skills as a pre-professional.

Admission Criteria

The eligibility requirements for applying to this program include evidence of completion of prerequisite courses: chemistry, anatomy, and physiology at the undergraduate level. Preference is given to students with a minimum undergraduate GPA of 3.0; however, those with GPAs below this will be considered on a case-by-case basis.

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 of Food and Nutrition accepts applications for graduate assistantships in early spring of each year.

Degree Requirements (36 cr.)

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

I. Nutrition Science Core Courses (12 cr.)

- FDNT 564 - Food and Nutrition Research Methods **Credits: 3**
- FDNT 645 - Proteins, Carbohydrates, and Fats **Credits: 3**
- FDNT 649 - Vitamins, Minerals, and Water **Credits: 3**
- FDNT 771 - Lifecycle Nutrition **Credits: 3**

II. Research Requirement (6 cr.)

All students must engage in research. DNP students are exempt. Thesis option students will complete 6 credits of FDNT 795. Non-thesis option students will enroll in FDNT 661 and FDNT 662, which must be taken in the same academic year or summer concurrent sessions

- FDNT 795 - Thesis **Credits: 1-4**
or
- FDNT 661 - Designing Effective Food and Nutrition Research Projects **Credits: 3**
and
- FDNT 662 - Applying Research Methods in Food and Nutrition **Credits: 3**

III. Track Selection - Optional (18 cr.)

Education Track

- FDNT 515 - Sustainable Nutrition **Credits: 3**
- FDNT 522 - Public Health Nutrition and Epidemiology **Credits: 3**
- FDNT 571 - Integrative Nutrition in Complementary and Alternative Healthcare **Credits: 3**
- FDNT 625 - Community Nutrition and Policy **Credits: 3**
- FDNT 631 - Eating Behaviors and Food Habits **Credits: 3**
- FDNT 636 - Nutrition Education and Intervention **Credits: 3**

IV. Electives (0-18 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. For students who do not opt

to select a track, courses listed in the Education track may be applied as electives. Only 6 credits of FDNT 696 or FDNT 698 may count toward the degree.

- FDNT 545 - Advanced Sports Nutrition **Credits:** 3
- FDNT 630 - Connecting Theory to Research and Practice **Credits:** 3
- FDNT 642 - Contemporary Issues in Food and Nutrition **Credits:** 3

Dietitian-Nutritionist Program (DNP) Only (33 cr.)

Only students enrolled in the Dietitian- Nutritionist Program (DNP) are permitted to enroll in these courses.

- FDNT 612 - Administration of Food Service Systems **Credits:** 3
- FDNT 637 - Nutrition Counseling and Intervention **Credits:** 3
- FDNT 651 - Professional Dietetic Practice **Credits:** 3
- FDNT 696 - Experiential Practice in Dietetics **Credits:** 1-6
- FDNT 770 - Clinical Nutrition Assessment **Credits:** 3
- FDNT 772 - Clinical Nutrition Therapy I **Credits:** 3
- FDNT 773 - Clinical Nutrition Therapy II **Credits:** 3

Total Credit Requirements for Accredited DNP: 63 Credits

[Nutrition Science Core (12 cr) + Education Track (18 cr) + DNP Only Courses (33 cr)]

Geographical Sciences and Planning, MS

IUP's Department of Geography and Regional Planning offers graduate programs leading to the degree of Master of Science in geographical sciences and planning. 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 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 will also complete 9 credits of required courses (including thesis credits), as well as 15 cr. of electives based on student's interests. Select courses in related fields may be applied toward the degree as part of the electives. 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 completed portfolio is an ungraded graduation requirement. A three-person faculty committee evaluates the portfolio, which will include *at least* three of the student's best pieces of work, representative of three content areas: (1) writing, (2) cartography, and (3) analysis as well as a written reflective analysis of their collective work. **The portfolio is submitted by the end of the first week of the semester the student is scheduled to graduate.**

I. Core Program (9 cr.)

- GEOG 610 - Research in Geography and Regional Planning **Credits: 3**
- GEOG 612 - Quantitative Techniques in Geography and Regional Planning **Credits: 3**
- GEOG 614 - Thought and Philosophy in Geography and Regional Planning **Credits: 3**

II. Tracks (Choose one)

A. GIS/Cartography Track (15 cr.)

Five courses from among the following:

- GEOG 514 - Map and Photograph Interpretation **Credits: 3**
- GEOG 515 - Introduction to Remote Sensing **Credits: 3**
- GEOG 516 - Introduction to Geographic Information Systems **Credits: 3 ***
- GEOG 617 - Field Techniques in Geography and Planning **Credits: 3**
- GEOG 618 - GIS Applications Development **Credits: 3**

B. Regional Planning Track (15 cr.)

Five courses from among the following:

- GEOG 531 - Population Geography **Credits: 3**
- GEOG 532 - Urban Geography **Credits: 3**
- GEOG 533 - Geography of Transportation and Trade **Credits: 3**
- GEOG 534 - Political Geography **Credits: 3**
- GEOG 536 - Social Geography **Credits: 3**
- GEOG 550 - Introduction to Community Planning **Credits: 3 ***
- GEOG 552 - Planning Methods **Credits: 3 ***
- GEOG 554 - Planning Design II **Credits: 3**
- GEOG 558 - Land Use Law **Credits: 3**

- GEOG 564 - Land Use Policy **Credits: 3 ***
- GEOG 568 - Planning Theory **Credits: 3**
- GEOG 617 - Field Techniques in Geography and Planning **Credits: 3**
- GEOG 624 - Technical Issues in GIS **Credits: 3**
- GEOG 623 - Regional Development **Credits: 3**
- GEOG 625 - Environmental Planning **Credits: 3**
- GEOG 633 - Settlement Geography **Credits: 3**
- GEOG 665 - Plan Implementation **Credits: 3**
- PLSC 668 - Public Sector Financial Administration **Credits: 3**

C. Environmental Planning Track (15 cr.)

Five courses from among the following:

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

III. Electives and/or Thesis (Choose one)

A. Thesis Option (9 cr.)

- Electives in GEOG and related fields **Credits: 3-8**
- GEOG 795 - Thesis **Credits: 1-6**

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

Note

* Required course for the track

Total 33-39 cr.

Health Services Administration, MS

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 Relations and Health Services Administration, 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 BS or BA 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 631 - Human Resources Management in the Public Sector **Credits: 3**
or
- HSAD 631 - Human Resources Management in the Public Sector **Credits: 3**
- HSAD 605 - Epidemiology in Health Services Administration **Credits: 3**
- HSAD 609 - Ethics and Social Issues in Healthcare **Credits: 3**
- NURS 614 - Health Policy and Patient Advocacy **Credits: 3**
or
- HSAD 614 - Health Policy **Credits: 3**

- ELR 616 - Health Law **Credits: 3**
or
- HSAD 616 - Health Law **Credits: 3**
- ELR 619 - Research Methods in Human Resources and Employment and Labor Relations **Credits: 3**
or
- HSAD 619 - Research Methods in Human Resources and Employment and Labor Relations **Credits: 3**
or
- GSR 615 - Elements of Research **Credits: 3**
- NURS 622 - The Practice of Nursing Research I **Credits: 3**
- An approved course in Research Methods
- NURS 555 - Healthcare Informatics **Credits: 3**
or
- HSAD 555 - Health Care Informatics **Credits: 3**
or
- IFMG 640 - Information Systems Management **Credits: 3**

- An approved course in Information Science

- NURS 730 - Financial Management in Health Care **Credits: 3**
or
- HSAD 730 - Financial Management in Health Care **Credits: 3**
or
- FIN 630 - Corporate Finance and Valuation **Credits: 3**

- An approved course in Finance

- HSAD 761 - Health Services Capstone **Credits: 3**
or
- NURS 731 - Nursing Administration Capstone **Credits: 3**
- NURS 732 - Organizational Behavior in Health Care Administration **Credits: 3**
- ELR 698 - Internship **Credits: 3 or 6**
- HSAD 795 - Thesis **Credits: 3-6**

- Elective approved by coordinator

Elective 1: Organizational Behavior/Supervision - 3 cr.

- ELR 751 - Conflict Resolution **Credits: 3**
or
- HSAD 751 - Conflict Resolution **Credits: 3**

- ELR 612 - Labor Relations Practice and Administration **Credits: 3**
- ELR 610 - Employee Rights under Law **Credits: 3**
- MGMT 613 - Advances in Organizational Behavior and Human Resource Management **Credits: 3**
- An approved course in Organizational Behavior or Supervision

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

- NURS 619 - Leadership in Health Care **Credits:** 3
- NURS 729 - Nursing Administration **Credits:** 3
- ELR 640 - Negotiations **Credits:** 3
- ELR 751 - Conflict Resolution **Credits:** 3
- or
- HSAD 751 - Conflict Resolution **Credits:** 3

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

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.

Nursing, MS

The master's degree in nursing at Indiana University of Pennsylvania is accredited by the Commission on Collegiate Nursing Education (<http://ccneaccreditation.org>). 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 36-credit 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 US. 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.

Culminating Activity

As a program requirement, all students will develop a comprehensive portfolio project according to guidelines provided by the faculty.

Program Requirements

- Bachelor's Degree. If Bachelor's degree is not in Nursing the student will be required to complete 3-credit course: NURS 554 Transition to Advanced Professional Nursing.
- Current license as a registered nurse (US Pennsylvania licensure is required before students begin clinical courses)
- QPA of 3.01 (4.0 scale) if graduated within 5 years
- Evidence of coursework in statistics in research

Program Requirements

- Bachelor's Degree. If Bachelor's degree is not in Nursing the student will be required to complete 3-credit course: NURS 554 Transition to Advanced Professional Nursing.
- Current license as a registered nurse
- QPA of 3.01 (4.0 scale) if graduated within 5 years
- Evidence of coursework in statistics in research

I. Graduate Nursing Core (21 cr.)

- NURS 610 - Health Promotion and Social Issues **Credits: 3**
- NURS 614 - Health Policy and Patient Advocacy **Credits: 3**
- NURS 619 - Leadership in Health Care **Credits: 3**
- NURS 623 - Translating Research into Nursing Practice **Credits: 3**
- NURS 628 - Advanced Professional Role **Credits: 3**
- NURS 629 - Healthcare Quality and Safety **Credits: 3**
- NURS 555 - Healthcare Informatics **Credits: 3**
or
- HSAD 555 - Health Care Informatics **Credits: 3**

II. Tracks

A. Administration Track Courses (15 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.

- NURS 729 - Nursing Administration **Credits: 3**
- NURS 730 - Financial Management in Health Care **Credits: 3**
- NURS 744 - Advanced Nursing Roles Capstone **Credits: 3**
- NURS 732 - Organizational Behavior in Health Care Administration **Credits: 3**
- Elective or additional administrative track course **Credits: 3**

B. Nursing Education Track Courses (15 cr.)

- NURS 721 - Advanced Clinical Practice for the Nurse Educator **Credits: 3**
- NURS 722 - Measurement and Evaluation in Nursing Education **Credits: 3**
- NURS 723 - Program Development in Nursing Education **Credits: 3**
- NURS 725 - Teaching Strategies for Nursing Curricula **Credits: 3**
- NURS 744 - Advanced Nursing Roles Capstone **Credits: 3**

Total 36 cr.

Safety Sciences, MS

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, admission to the MS Safety Sciences program requires a baccalaureate degree in safety sciences or other closely related field from a regionally accredited academic institution and/or a professional certification (e.g. CSP, CIH, PE, or ASP designation).

If the applicant does not hold a baccalaureate degree in safety sciences or other closely related field and/or does not hold a professional certification the student will be required to eliminate the following deficiencies: college algebra, college chemistry with lab, college physics with lab and a 30-hr OSHA card in either general industry or construction. The deficiencies can be completed while enrolled in the program. 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 **Credits: 2**
- SAFE 605 - Application of Safety Engineering Principles **Credits: 3**
- SAFE 610 - Safety, Health, and Environmental Administration **Credits: 3**
- SAFE 644 - Preventing Unsafe Acts **Credits: 3**
- SAFE 647 - Applied Ergonomics **Credits: 3**
- SAFE 660 - Applied Industrial Hygiene **Credits: 3**
- SAFE 774 - Fire Safety in Building Design **Credits: 3**
- SAFE 701 - Environmental Impact Analysis and Documentation **Credits: 3**
- SAFE 791 - Capstone Project in Safety Sciences **Credits: 1**

Controlled Electives (12 cr.)

Choose a minimum of 12 credit hours

- SAFE 520 - Law and Ethics in the Safety Profession **Credits: 3**
- SAFE 541 - Accident Investigation **Credits: 3**
- SAFE 542 - Current Issues in Safety **Credits: 3**
- SAFE 543 - Construction Safety **Credits: 3**
- SAFE 561 - Air Pollution **Credits: 3**
- SAFE 562 - Radiological Health **Credits: 3**
- SAFE 565 - Right-to-Know Legislation **Credits: 3**
- SAFE 581 - Special Topics **Credits: 3**
- SAFE 603 - Human Relations in Safety Management **Credits: 3**
- SAFE 604 - Industrial Toxicology **Credits: 3**
- SAFE 606 - Hazardous Materials Management **Credits: 3**
- SAFE 620 - Safety Data Management **Credits: 3**
- SAFE 621 - Programming Safe Behavior **Credits: 3**
- SAFE 623 - Advanced Safety Administration **Credits: 3**
- SAFE 624 - Solving Safety Problems **Credits: 3**
- SAFE 625 - Risk Strategies for the SH&E Professional **Credits: 3**
- SAFE 630 - Pollution Control **Credits: 3**
- SAFE 663 - Industrial Hygiene Laboratory Methods **Credits: 3**
- SAFE 664 - Industrial Noise Control **Credits: 3**
- SAFE 672 - Process Safety in the Chemical Industries **Credits: 3**
- SAFE 701 - Environmental Impact Analysis and Documentation **Credits: 3**
- SAFE 773 - Disaster Preparedness **Credits: 3**
- SAFE 681 - Special Topics **Credits: 3**
- SAFE 699 - Independent Study **Credits: 3**
- SAFE 795 - Thesis **Credits: 1-6**

Note

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.

Total 36 cr.

Speech-Language Pathology, MS

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, 4) two letters of recommendation, 5) a goal statement, and 6) an interview with the program's admissions committee. Applicants must also meet the program's technical standards and professional dispositions.

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 submit TOEFL or IELTS test scores taken within the past year. To demonstrate proficiency, applicants must submit a minimum score of 600 paper-based TOEFL, 100 internet-based (iBT), or 7.0 IELTS. International students with an undergraduate degree from an American university do not have to submit TOEFL or IELTS scores. Similarly, students from countries where English is a dominant language are not required to submit scores (see <https://www.iup.edu/admissions/international/undergraduate-requirements/countries-not-requiring-english-proficiency-test-scores/>). 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 two courses may be repeated, and only one time. Only one 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, 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. A total of 51 credits are required for the degree.

Required Courses:

- GSR 615 - Elements of Research **Credits: 3**
- SPLP 610 - Pediatric Speech & Language Disorders 1 **Credits: 3**
- SPLP 611 - Pediatric Speech & Language Disorders 2 **Credits: 3**
- SPLP 614 - Swallowing Disorders **Credits: 3**
- SPLP 616 - Fluency and Motor Speech Disorders **Credits: 3**
- SPLP 618 - Voice Disorders **Credits: 3**
- SPLP 632 - Neurogenic Communication Disorders **Credits: 3**
- SPLP 635 - Seminar in Communication **Credits: 4**
- SPLP 642 - Cancer & Congenital Disorders **Credits: 2**
- SPLP 643 - Counseling for Communication Disorders **Credits: 1**
- SPLP 644 - Professional Issues **Credits: 2**
- SPLP 661 - Treatment Clinic **Credits: Var. 2-6 (Taken as a 2 cr. course, repeat once for a total of 4 cr.)**
- SPLP 662 - Diagnostic Clinic **Credits: 3**
- SPLP 663 - Hearing Clinic **Credits: 1**
- SPLP 664 - Simulation Clinic **Credits: 1**
- SPLP 796 - Internship: Adult Placement **Credits: 6**

- SPLP 798 - Internship: Pediatric Placement **Credits: 6**
- SPLP 795 - Thesis **Credits: 3** (may substitute for 3 cr. of seminar)

Total 51 cr.

Sport Science, MS

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 **Credits: 3**
- KHSS 634 - Current Literature in Health, Fitness, and Sport **Credits: 3**
- KHSS 640 - Research Methods for Health, Sport, and Physical Activity **Credits: 3**

B. Required Courses (24 cr.)

- KHSS 601 - Sport and Society **Credits: 3**
- KHSS 635 - Sports Leadership **Credits: 3**
- KHSS 637 - Sport Facilities Management **Credits: 3**
- KHSS 652 - Globalization of Sports Business **Credits: 3**
- KHSS 795 - Thesis **Credits: 3-6**

- KHSS 660 - Governance in Intercollegiate Athletics **Credits: 3**
- ELR 631 - Human Resources Management in the Public Sector **Credits: 3**
or
- HSAD 631 - Human Resources Management in the Public Sector **Credits: 3**

C. Elective Courses (3 cr.)

- KHSS 513 - Physical Activity and Aging Across the Lifespan **Credits: 3**
- KHSS 603 - Physiological Basis of Sport **Credits: 3**
- KHSS 610 - Coaching Management **Credits: 3**
- KHSS 625 - Management Concepts in Fitness **Credits: 3**
- KHSS 632 - Assessment of Human Physiological Functions **Credits: 3**
- KHSS 641 - Administration of Aquatic Programs **Credits: 3**
- KHSS 642 - Design and Operation of Aquatic Facilities **Credits: 3**
- KHSS 673 - Strength and Conditioning for Individual and Team Athletes **Credits: 3**
- KHSS 680 - Seminar **Credits: 3**
- ELR 615 - Dispute Settlement **Credits: 3**
- ELR 640 - Negotiations **Credits: 3**
- ELR 651 - Conflict Resolution **Credits: 3**

Total 36 cr.

II. Non-Thesis Track

A. Core Courses (9 cr.)

- KHSS 602 - Sport Psychology **Credits: 3**
- KHSS 634 - Current Literature in Health, Fitness, and Sport **Credits: 3**
- KHSS 640 - Research Methods for Health, Sport, and Physical Activity **Credits: 3**

B. Required Courses (21 cr.)

- KHSS 601 - Sport and Society **Credits: 3**
- KHSS 635 - Sports Leadership **Credits: 3**
- KHSS 637 - Sport Facilities Management **Credits: 3**
- KHSS 652 - Globalization of Sports Business **Credits: 3**
- KHSS 660 - Governance in Intercollegiate Athletics **Credits: 3**
- KHSS 698 - Internship **Credits: 3-6**
- ELR 631 - Human Resources Management in the Public Sector **Credits: 3**
or
- HSAD 631 - Human Resources Management in the Public Sector **Credits: 3**

C. Elective Courses (6 cr.)

- KHSS 512 - Physical Activity and Stress Management **Credits: 3**
- KHSS 513 - Physical Activity and Aging Across the Lifespan **Credits: 3**

- KHSS 603 - Physiological Basis of Sport **Credits: 3**
- KHSS 610 - Coaching Management **Credits: 3**
- KHSS 625 - Management Concepts in Fitness **Credits: 3**
- KHSS 641 - Administration of Aquatic Programs **Credits: 3**
- KHSS 642 - Design and Operation of Aquatic Facilities **Credits: 3**
- KHSS 680 - Seminar **Credits: 3**
- ELR 610 - Employee Rights under Law **Credits: 3**
or
- HSAD 610 - Employee Rights under Law **Credits: 3**
- ELR 615 - Dispute Settlement **Credits: 3**
- ELR 625 - Processes of Collective Bargaining **Credits: 3**
- ELR 640 - Negotiations **Credits: 3**
- ELR 651 - Conflict Resolution **Credits: 3**
- MGMT 503 - Small Business Planning **Credits: 3**
- MGMT 613 - Advances in Organizational Behavior and Human Resource Management **Credits: 3**
- MKTG 603 - Marketing Analysis and Decision Making **Credits: 3**
- GSR 615 - Elements of Research **Credits: 3**
- ECON 501 - Foundations of Modern Economics **Credits: 3**
- 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 **Credits: 3**
- KHSS 634 - Current Literature in Health, Fitness, and Sport **Credits: 3**
- KHSS 640 - Research Methods for Health, Sport, and Physical Activity **Credits: 3**

B. Required Courses (24 cr.)

- KHSS 514 - Exercise Electrocardiography **Credits: 2**
- KHSS 515 - Wellness Coaching for Lifestyle Behavior Management **Credits: 3**
- KHSS 620 - Exercise Prescription for Chronic Diseases **Credits: 3**
- KHSS 632 - Assessment of Human Physiological Functions **Credits: 3**
- KHSS 643 - Advance Exercise Physiology **Credits: 3**
- KHSS 672 - Epidemiology of Physical Activity **Credits: 3**
- KHSS 795 - Thesis **Credits: 3-6**

C. Elective Courses (3 cr.)

- KHSS 513 - Physical Activity and Aging Across the Lifespan **Credits: 3**

- KHSS 516 - Functional Training for Strength and Conditioning **Credits: 3**
- FDNT 645 - Proteins, Carbohydrates, and Fats **Credits: 3**
- KHSS 672 - Epidemiology of Physical Activity **Credits: 3**
- 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 **Credits: 3**
- KHSS 634 - Current Literature in Health, Fitness, and Sport **Credits: 3**
- KHSS 640 - Research Methods for Health, Sport, and Physical Activity **Credits: 3**

B. Required Courses (27 cr.)

- KHSS 514 - Exercise Electrocardiography **Credits: 2**
- KHSS 515 - Wellness Coaching for Lifestyle Behavior Management **Credits: 3**
- KHSS 620 - Exercise Prescription for Chronic Diseases **Credits: 3**
- KHSS 625 - Management Concepts in Fitness **Credits: 3**
- KHSS 632 - Assessment of Human Physiological Functions **Credits: 3**
- KHSS 643 - Advance Exercise Physiology **Credits: 3**
- KHSS 672 - Epidemiology of Physical Activity **Credits: 3**
- KHSS 680 - Seminar **Credits: 3**
- KHSS 698 - Internship **Credits: 3-6**

Total 36 cr.

Strength and Conditioning Concentration

I. Thesis Track

A. Core Courses (9 cr.)

- KHSS 602 - Sport Psychology **Credits: 3**
- KHSS 634 - Current Literature in Health, Fitness, and Sport **Credits: 3**
- KHSS 640 - Research Methods for Health, Sport, and Physical Activity **Credits: 3**

B. Required Courses (24 cr.)

- FDNT 558 - Advanced Human Nutrition **Credits: 3**
- KHSS 625 - Management Concepts in Fitness **Credits: 3**
- KHSS 632 - Assessment of Human Physiological Functions **Credits: 3**
- KHSS 643 - Advance Exercise Physiology **Credits: 3**
- KHSS 673 - Strength and Conditioning for Individual and Team Athletes **Credits: 3**
- KHSS 674 - Functional & Tactical Strength & Conditioning: Theory & Practice **Credits: 3**

- KHSS 795 - Thesis **Credits: 3-6**

C. Elective Courses (3 cr.)

- KHSS 513 - Physical Activity and Aging Across the Lifespan **Credits: 3**
- KHSS 516 - Functional Training for Strength and Conditioning **Credits: 3**
- FDNT 645 - Proteins, Carbohydrates, and Fats **Credits: 3**
- KHSS 672 - Epidemiology of Physical Activity **Credits: 3**
- 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 **Credits: 3**
- KHSS 634 - Current Literature in Health, Fitness, and Sport **Credits: 3**
- KHSS 640 - Research Methods for Health, Sport, and Physical Activity **Credits: 3**

B. Required Courses (24 cr.)

- FDNT 558 - Advanced Human Nutrition **Credits: 3**
- KHSS 625 - Management Concepts in Fitness **Credits: 3**
- KHSS 632 - Assessment of Human Physiological Functions **Credits: 3**
- KHSS 643 - Advance Exercise Physiology **Credits: 3**
- KHSS 673 - Strength and Conditioning for Individual and Team Athletes **Credits: 3**
- KHSS 674 - Functional & Tactical Strength & Conditioning: Theory & Practice **Credits: 3**
- KHSS 680 - Seminar **Credits: 3**
- KHSS 698 - Internship **Credits: 3-6**

C. Elective Courses (3 cr.)

- KHSS 513 - Physical Activity and Aging Across the Lifespan **Credits: 3**
- KHSS 516 - Functional Training for Strength and Conditioning **Credits: 3**
- FDNT 645 - Proteins, Carbohydrates, and Fats **Credits: 3**
- KHSS 672 - Epidemiology of Physical Activity **Credits: 3**
- Students may select another graduate-level elective with advisor permission.

Total 36 cr.

Sport Studies Track

I. Thesis Track

A. Core Courses (9 cr.)

- KHSS 602 - Sport Psychology **Credits: 3**
- KHSS 634 - Current Literature in Health, Fitness, and Sport **Credits: 3**
- KHSS 640 - Research Methods for Health, Sport, and Physical Activity **Credits: 3**

B. Required Course (15 cr.)

- KHSS 601 - Sport and Society **Credits: 3**
- KHSS 603 - Physiological Basis of Sport **Credits: 3**
- KHSS 680 - Seminar **Credits: 3**
- KHSS 795 - Thesis **Credits: 3-6**

C. Elective Courses (12 cr.)

- KHSS 513 - Physical Activity and Aging Across the Lifespan **Credits: 3**
- KHSS 515 - Wellness Coaching for Lifestyle Behavior Management **Credits: 3**
- KHSS 603 - Physiological Basis of Sport **Credits: 3**
- KHSS 610 - Coaching Management **Credits: 3**
- KHSS 625 - Management Concepts in Fitness **Credits: 3**
- KHSS 632 - Assessment of Human Physiological Functions **Credits: 3**
- KHSS 635 - Sports Leadership **Credits: 3**
- KHSS 637 - Sport Facilities Management **Credits: 3**
- KHSS 641 - Administration of Aquatic Programs **Credits: 3**
- KHSS 642 - Design and Operation of Aquatic Facilities **Credits: 3**
- KHSS 652 - Globalization of Sports Business **Credits: 3**
- KHSS 660 - Governance in Intercollegiate Athletics **Credits: 3**
- KHSS 673 - Strength and Conditioning for Individual and Team Athletes **Credits: 3**
- KHSS 698 - Internship **Credits: 3-6**
- ELR 615 - Dispute Settlement **Credits: 3**
- ELR 640 - Negotiations **Credits: 3**
- ELR 651 - Conflict Resolution **Credits: 3**
- 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 **Credits: 3**
- KHSS 634 - Current Literature in Health, Fitness, and Sport **Credits: 3**
- KHSS 640 - Research Methods for Health, Sport, and Physical Activity **Credits: 3**

B. Required Courses (6 cr.)

- KHSS 601 - Sport and Society **Credits: 3**
- KHSS 603 - Physiological Basis of Sport **Credits: 3**

C. Elective Courses (21 cr.)

- KHSS 513 - Physical Activity and Aging Across the Lifespan **Credits: 3**
- KHSS 515 - Wellness Coaching for Lifestyle Behavior Management **Credits: 3**
- KHSS 603 - Physiological Basis of Sport **Credits: 3**
- KHSS 610 - Coaching Management **Credits: 3**
- KHSS 625 - Management Concepts in Fitness **Credits: 3**
- KHSS 632 - Assessment of Human Physiological Functions **Credits: 3**
- KHSS 635 - Sports Leadership **Credits: 3**
- KHSS 637 - Sport Facilities Management **Credits: 3**
- KHSS 641 - Administration of Aquatic Programs **Credits: 3**
- KHSS 642 - Design and Operation of Aquatic Facilities **Credits: 3**
- KHSS 652 - Globalization of Sports Business **Credits: 3**
- KHSS 660 - Governance in Intercollegiate Athletics **Credits: 3**
- KHSS 673 - Strength and Conditioning for Individual and Team Athletes **Credits: 3**
- KHSS 698 - Internship **Credits: 3-6**
- ELR 615 - Dispute Settlement **Credits: 3**
- ELR 640 - Negotiations **Credits: 3**
- ELR 651 - Conflict Resolution **Credits: 3**
- Students may select graduate-level electives with advisor permission. Twelve credits must be KHSS graduate-level courses.

Total 36 cr.

Strategic Communication, MS

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 media production. Skilled communication professionals with a Master's in Strategic Communication degree are more necessary than ever. The rise of digital media has made goal-driven communication a central part of successful organization and business operations. This 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.

Program Requirements

The Master of Science in Strategic Communication is designed to meet the needs of both full-time students and working professionals. Full-time students who start in the fall semester can complete the program in as few as 12 months. Part-time students can lighten their workload to accommodate busy

schedules and still complete the program in two to three years. To earn your degree, requires a minimum of 36 credits beyond your bachelor's degree. That includes 30 course credits and 6 credits of internship or thesis. Students can specialize in either our Applied or Research tracks.

Students will complete a core of required courses (15 credits) that include: Theories and Principles of Strategic Communication, Writing for Strategic Communication, Multimedia Content Development and Production, Advanced Research and Professional Development, and Elements of Research. An additional 15 credits of elective courses will include topics such as Crisis Communication, Health Communication, Global Strategic Communication, and Persuasion. The program provides an option for a six-credit thesis or internship as the culminating experience. The research track is designed to prepare students for doctoral study or research-oriented positions in the communications industry.

MS in Strategic Communication (36 cr.)

I. Core Courses (15 Credits)

- COMM 511 - Theories & Principles of Strategic Communication **Credits: 3**
- COMM 512 - Writing for Strategic Communication **Credits: 3**
- COMM 513 - Multimedia Content Development and Production **Credits: 3**
- GSR 615 - Elements of Research **Credits: 3**
- COMM 715 - Research and Professional Development in Strategic Communication **Credits: 3**

II. Elective Courses (15 Credits)

- COMM 611 - The Strategic Communicator **Credits: 3**
- COMM 612 - Persuasion **Credits: 3**
- COMM 613 - Strategic Communication and Online Media Campaigns **Credits: 3**
- COMM 712 - Global Strategic Communication **Credits: 3**
- COMM 713 - Advanced Strategic Communication Writing and Production **Credits: 3**
- COMM 714 - Crisis Communication **Credits: 3**
- COMM 745 - Health Communication **Credits: 3**

III. Thesis/Internship (6 Credits)

- COMM 793 - Internship **Credits: 6**
or
- COMM 795 - Thesis **Credits: 1-6**

Total 36 cr.

Education Specialist

Education Specialist

School Psychology, EdS

The School Psychology (EdS) 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 MEd in Educational Psychology Degree, culminating in EdS 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 **Credits: 3**
- EDSP 812 - Cognitive Assessment **Credits: 3**
- EDSP 763 - Assessment of Personality and Behavior **Credits: 3**
- EDSP 755 - Practicum in School Psychology **Credits: 1-3 (2 credits required)**

Spring

- EDSP 760 - Group Counseling for School Psychologists I **Credits: 3**
- EDSP 814 - Advanced Assessment of Low Incidence Disabilities **Credits: 3**
- EDSP 818 - Instructional Consultation **Credits: 3**
- EDSP 849 - Advanced Practicum in School Psychology and Supervision **Credits: 3**
- EDSP 755 - Practicum in School Psychology **Credits: 1-3 (1 credit required)**

Summer

- EDSP 717 - Evaluating the Effectiveness of Program Interventions **Credits: 3**
- EDSP 849 - Advanced Practicum in School Psychology and Supervision **Credits: 3**

Internship (2 semesters, full-time)

Fall

- EDSP 852 - School Psychology Internship **Credits: 3**

Spring

- EDSP 852 - School Psychology Internship **Credits: 3**

Doctoral

Doctor of Education

Administration and Leadership Studies, DEd

The doctoral program in Administration and Leadership Studies is designed to educate future school superintendents and college administrators. The 60-credit graduate program 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 with a minimum of a 3.0 GPA is required to apply. Applicants 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 **Credits: 3**
- ALS 802 - Leadership: A Case Study Approach **Credits: 3**
- ALS 803 - Leadership: Applied Practice **Credits: 3**
- ALS 810 - Advanced Topics in Human Development and Learning **Credits: 3**
- ALS 850 - School and Community **Credits: 3**
- ALS 897 - Research Synthesis **Credits: 3**

II. Research (18 cr.)

- ALS 820 - Doctoral Seminar in Research Methods **Credits: 3**
- ALS 882 - Research Instrument Design for Leadership Studies **Credits: 3**
- ALS 883 - Analysis of Qualitative Data in Leadership Studies **Credits: 3**
- ALS 995 - Dissertation **Credits: 9**

III. Internship (6 cr.)

- ALS 898 - Internship in Administration and Leadership Studies **Credits: 6**

IV. Educational Administration (18 cr.)

- ALS 805 - Curriculum Evaluation **Credits: 3**
- ALS 825 - Critical Analysis of Issues in Education **Credits: 3**
- ALS 830 - Analysis of Effective Instruction **Credits: 3**
- ELR 851 - Conflict Resolution **Credits: 3**
- ALS 852 - School Evaluation **Credits: 3**¹
- CURR 915 - Writing for Professional Publication **Credits: 3**¹
- ALS 858 - School Law and Negotiations **Credits: 3**²
- ALS 860 - School Finance **Credits: 3**²

Note:

¹ Higher Education

² Public School

Curriculum and Instruction, DEd

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. 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 **Credits: 3**
- CURR 910 - Advanced Topics in Human Development and Learning **Credits: 3**
- CURR 925 - Critical Analysis of Issues in Education **Credits: 3**
- CURR 930 - Effective Teaching and Supervision **Credits: 3**
- CURR 935 - Democratizing Education: Diversity, Citizenship and Social Justice **Credits: 3**
- CURR 940 - Emerging Technologies in Education **Credits: 3**
- CURR 945 - Literacy: Theory, Research, and Practice **Credits: 3**
- CURR 951 - Innovations in Curriculum and Instruction **Credits: 3**
- CURR 955 - Research Proposals and Peer Review Processes **Credits: 3**

II. Research Methods and Scholarly Writing (18 cr.)

- CURR 915 - Writing for Professional Publication **Credits: 3**
- CURR 918 - Qualitative Research Design in Education **Credits: 3**
- CURR 920 - Quantitative Research Methods in Education **Credits: 3**
- CURR 960 - Comprehensive Evaluation of Educational Programs **Credits: 3**
- CURR 982 - Quantitative Data Analysis in Education **Credits: 3**
- CURR 983 - Qualitative and Mixed Methods Research in Education **Credits: 3**

III. Advanced, Graduate Level Electives (6 cr.)

- CURR 798 - Supervised Doctoral Internship **Credits: 6** (Required for students earning the Supervisor of Curriculum and Instruction Certificate)
- Other Courses As Approved (Required for all students not earning the Supervisor of Curriculum and Instruction Certificate)

IV. Dissertation (9 cr.)

- CURR 995 - Dissertation **Credits: 9**

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.

Total 60 cr.

Doctor of Philosophy

Administration and Leadership Studies, PhD

The PhD program in Administration and Leadership Studies (ALS) 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 - Proseminar **Credits: 1**
- LDRS 801 - Leadership Theories **Credits: 3**
- LDRS 802 - Leadership Applications **Credits: 3**
- LDRS 810 - Nonprofit Management **Credits: 3**
- LDRS 811 - Administration in the Public Sector **Credits: 3**
- LDRS 815 - Survey of Social and Organizational Theories I **Credits: 3**
- LDRS 816 - Survey of Social and Organization Theories II **Credits: 3**
- LDRS 804 - Social Policy **Credits: 3**
- ECON 820 - Managerial Economics for Decision Making and Leadership **Credits: 3**
- LDRS 900 - Dissertation Seminar **Credits: 3**

II. Research (24 cr.)

- LDRS 862 - Analysis of Social Data **Credits: 3**
- LDRS 863 - Quantitative Research Methods I **Credits: 3**
- LDRS 864 - Quantitative Research Methods II **Credits: 3**
- LDRS 865 - Qualitative Research Methods **Credits: 3**
- LDRS 861 - Program Evaluation **Credits: 3**
- LDRS 995 - Dissertation **Credits: 9**

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.

Business, PhD

The Eberly College of Business and Information Technology offers the PhD in Business program in a weekend, cohort-based format. The program is 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 is completed a master's degree with a minimum of 30 credits from business or a 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 811 - Theory Building and Research Methods **Credits: 3**
or
- ISDS 811 - Theory Building and Research Methods **Credits: 3**
- ISDS 812 - Quantitative Research Methods I **Credits: 3**
or
- ECON 812 - Quantitative Research Methods I **Credits: 3**
- ECON 813 - Quantitative Research Methods II **Credits: 3**
or
- ISDS 813 - Quantitative Research Methods II **Credits: 3**
- MKTG 850 - Marketing Theory **Credits: 3**
- FIN 870 - Financial Institutions and Markets **Credits: 3**
- MGMT 820 - Organizational Behavior **Credits: 3**
- IFMG 830 - MIS and Decision Making Theory **Credits: 3**
- ACCT 840 - Seminar in Managerial Accounting **Credits: 3**
- MGMT 860 - Global Competitiveness and Sustainability **Credits: 3**
or
- MKTG 860 - Global Competitiveness and Sustainability **Credits: 3**
- MGMT 880 - Global Supply Chain Management – Theory and Practice **Credits: 3**

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, organizational behavior, 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.

Clinical Psychology, PsyD

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; (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.

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 1. 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 99 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 (54 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 - Introduction to Therapeutic Techniques **Credits: 3**
- PSYC 831 - Advanced Therapeutic Techniques **Credits: 3**
- PSYC 832 - Therapeutic Techniques Lab **Credits: 3**
- PSYC 834 - Couples and Family Therapy **Credits: 3**

2. Methods of Assessment and Evaluation

- PSYC 841 - Psychometrics and IQ Assessment **Credits: 3**
- PSYC 842 - Assessment of Personality and Psychopathology **Credits: 3**

3. Research and Methodology

- PSYC 801 - Univariate Research Methods **Credits: 3**
- PSYC 802 - Multivariate Research Methods **Credits: 3**
- PSYC 803 - Applied Research Methods **Credits: 3**

4. Individual Differences

- PSYC 835 - Adult Psychopathology **Credits: 3**
- PSYC 836 - Personality and Psychotherapy **Credits: 3**
- PSYC 853 - Issues in Developmental Psychology **Credits: 3**

5. Physiological Bases of Behavior:

- PSYC 856 - Psychopharmacology **Credits: 3**
- PSYC 857 - Clinical Neuropsychology **Credits: 3**

6. Cognitive Bases of Behavior:

- PSYC 852 - Behavioral, Cognitive, and Affective Basis of Behavior **Credits: 3**

7. Social Bases of Behavior:

- PSYC 855 - Human Diversity **Credits: 3**
- PSYC 858 - Advanced Social Psychology **Credits: 3**

8. History of Psychology:

- PSYC 810 - Historical Trends in Psychology **Credits: 3**

II. Elective Course Work/Special Proficiency: (9 cr.)

Students select advanced courses in consultation with an advisor.

III. Practicum, Internship, and Professional Issues (30 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.

- PSYC 920 - Professional Issues and Ethics I **Credits:** 1
- PSYC 921 - Professional Issues and Ethics II **Credits:** 1
- PSYC 922 - Professional Issues and Ethics III **Credits:** 1
- PSYC 976 - Introduction to Supervision & Consultation **Credits:** 3

Internal Practicum (12 cr. required):

- PSYC 971 - Therapy Clinic I **Credits:** 3
or
- PSYC 972 - Therapy Clinic II **Credits:** 3
or
- PSYC 973 - Assessment Clinic I **Credits:** 3

- PSYC 993 - Advanced Psychological Practicum **Credits:** 1-21
- PSYC 994 - Internship **Credits:** 3

IV. Doctoral Project (9 cr.)

- PSYC 995 - Doctoral Dissertation **Credits:** 3-9

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.

The Clinical Proficiency Evaluation is completed during the third 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. 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.

Counselor Education and Supervision, PhD

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 PhD 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 IUP's 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 **Credits: 3**
- COUN 870 - Advanced Counseling **Credits: 3**
- COUN 880 - Preparation for the Professoriate: Leadership and Advocacy in the Counseling Profession **Credits: 3**
- COUN 900 - Preparation for the Professoriate: Teaching in Counseling **Credits: 3**

- COUN 910 - Counseling Supervision and Consultation **Credits: 3**

II. Research and Scholarship (12 cr.):

- COUN 890 - Quantitative Research and Statistical Analysis in Counselor Education **Credits: 3**
- COUN 920 - Qualitative Methodology in Counselor Education **Credits: 3**
- COUN 940 - Preparation for the Professoriate: Research in Counselor Education and Supervision **Credits: 3**
- COUN 950 - Advanced Research in Counselor Education: Mixed Methods Approaches **Credits: 3**

III. Clinical - Practicum & Internship (9 cr.):

- COUN 930 - Doctoral Practicum in Counseling **Credits: 3**
- COUN 960 - Doctoral Field Experience in Counselor Education **Credits: 3**
- COUN 960 - Doctoral Field Experience in Counselor Education **Credits: 3**

IV. Dissertation - Dissertation (12 cr.):

- COUN 995 - Dissertation **Credits: 6**
- COUN 995 - Dissertation **Credits: 6**

Total Credits: 48 cr.

Criminology, PhD

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 **Credits: 3**
- CRIM 817 - Advanced Qualitative Methods **Credits: 3**
- CRIM 818 - Quantitative Strategies for Analysis in Criminology **Credits: 3**
- CRIM 820 - Advanced Quantitative Methods **Credits: 3**
- CRIM 830 - Ethical and Philosophical Issues in Criminology **Credits: 3**
- CRIM 840 - Advanced Criminal Justice Policy **Credits: 3**
- CRIM 851 - Doctoral Colloquium in Criminology **Credits: 3**

II. Advanced Applied Research (9 cr.):

- CRIM 901 - Advanced Applied Research I **Credits: 3**
- CRIM 902 - Advanced Applied Research II **Credits: 3**
- CRIM 903 - Advanced Applied Research III **Credits: 3**

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.

English/Composition and Applied Linguistics, PhD

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

Program Requirements

I. Composition and Applied Linguistics Discipline Courses (9 cr.)

- ENGL 825 - Second Language Literacy **Credits: 3**
- ENGL 830 - Research and Practice in the Teaching of College Composition **Credits: 3**
- ENGL 8XX - Teaching Practicum **Credits: 3**

II. CAL Research Courses (12 cr.)

- ENGL 815 - Qualitative Research Methods in Composition and Applied Linguistics **Credits: 3**
- ENGL 820 - Quantitative Research in Composition and Applied Linguistics **Credits: 3**
- ENGL 835 - Research Design and the Craft of Writing **Credits: 3**
- ENGL 9XX - Dissertation Writing **Credits: 3**

CAL Theory & Pedagogy Electives (12 cr.)

- ENGL 805 - Language and Social Context **Credits: 3**
- ENGL 808 - Technology and Literacy **Credits: 3**
- ENGL 823 - Second Language Teaching **Credits: 3**
- ENGL 824 - Second Language Acquisition **Credits: 3**
- ENGL 831 - Rhetorical Traditions **Credits: 3**
- ENGL 833 - Theories of Composition **Credits: 3**
- ENGL 845 - Theories of Literacy **Credits: 3**
- ENGL 854 - World Englishes in Composition and Applied Linguistics **Credits: 3**
- ENGL 867 - Research on Writing Centers and Writing Program Administration **Credits: 3**
- ENGL 881 - Special Topics **Credits: 3**

CAL Reserach Electives (3 cr.)

- ENGL 846 - Research Seminar **Credits: 3**

Total Course Hours: 36 cr.

12 Dissertation Credits

Participation in Reserach Teams

Students will be assigned to a research team that is led by a faculty member upon admission. They will be required to interact with this team on a monthly basis.

Qualifying Portfolio

At the end of their first year, students will complete a portfolio that includes an original manuscript, a final course paper, reports from course instructors, a report from their research team leader, and a Professionalization Plan that details how they plan to meet the Year 2 Professionalization Portfolio requirements.

Professionalization Portfolio

At the end of their second year, students will submit a portfolio that includes an original teacher-scholar study, evidence of engagement with their scholarly community (detailed to be determined in Year 1 Professionalization Plan), reports from course instructors, and a report from their research team leader.

Three Chapter Defense

Students will orally defend the first three chapters of their dissertation, or the equivalent if they are opting for the three- article dissertation option.

Dissertation Defense

Students will orally defend their completed dissertation.

English/Literature and Criticism, PhD

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.

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.

Two Core Courses (6 cr.)

- ENGL 955 - The History and Theory of Criticism **Credits:** 3
- ENGL 956 - Literary Theory for the Teacher and Scholarly Writer **Credits:** 3

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 - American Literature before 1870: **Credits:** 3
- ENGL 862 - American Literature since 1870: **Credits:** 3

- ENGL 863 - British Literature Before 1660: **Credits: 3**
- ENGL 864 - British Literature Since 1660: **Credits: 3**
- ENGL 865 - Literature as Genre: **Credits: 3**
- ENGL 866 - Comparative Literature: **Credits: 3**

At Least One Course must be in Special Literatures:

- ENGL 871 - Postmodern Literature: **Credits: 3**
- ENGL 872 - Women's Literature: **Credits: 3**
- ENGL 873 - American or British Minority Literature **Credits: 3**

Two Advanced Seminars (6 cr.)

- ENGL 983 - Literary Theory & American Authors **Credits: 3**
- ENGL 984 - Literary Theory & British Authors **Credits: 3**
- ENGL 985 - Comparative Literary Theory **Credits: 3**

Total 30 cr.

Media and Communication Studies, PhD

The PhD in Media and Communication Studies (MCOM) is designed to develop scholars who are prepared to conduct advanced research and are experts in three primary areas:

- communication theory
- the impact of media on culture
- the production of media texts

Graduates will synthesize knowledge from domains within the communication field and related disciplines as they assume leadership roles in diverse professional environments.

The 60-credit program prepares students through coursework in culture and theory, media research, and media production with an emphasis on current and emerging technologies. Upon completion of the PhD in Media and Communication Studies, the graduate is prepared to:

- conduct research that enables organizations to effectively implement communication skills and media messaging
- apply research, an understanding of culture, and media production skills to the development of new media
- analyze and interpret the social, cultural, and political dynamics of media environments
- design, produce, and utilize media within a variety of cultural and professional contexts
- synthesize existing media and emerging technologies

Student Qualifications, Support, and Advisement

Materials to Submit

Students seeking admission to the PhD in Media and Communication Studies 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 MCOM PhD program must submit the following for review by the doctoral program committee:

- Official higher education transcripts (undergraduate and graduate)
- 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 directly addressing your ability to work at the doctoral level
- Professional goal statement addressing why you are interested in pursuing doctoral studies in this area, your longterm professional goals, and preparations you are undertaking in anticipation of acceptance into the program

Upon review of completed applications, the MCOM faculty admissions committee may invite the applicant to participate in an admissions interview, either in person or via video conferencing. The committee determines whether to accept, waitlist, or deny each applicant.

Curriculum Overview

I. Research Courses (12 Credits)

- COMM 800 - Communication Research Statistics **Credits:** 3 (or equivalent)
- COMM 825 - Quantitative Methods in Communication Research **Credits:** 3
- COMM 828 - Qualitative Methods in Communications Research **Credits:** 3
- COMM 910 - Advanced Doctoral Research in Communications **Credits:** 3

II. Theory and Culture Core Courses (9 Credits)

- COMM 801 - Ideas That Shape Media **Credits:** 3
- COMM 815 - Teaching Communications Media **Credits:** 3
- COMM 857 - Doctoral Seminar in Communications Culture and Technology **Credits:** 3

III. Production Core Courses (12 cr.)

- COMM 830 - Media Preproduction **Credits:** 3
- COMM 832 - Media Production **Credits:** 6

- COMM 846 - Instructional Media Solutions **Credits:** 3

IV. Elective Courses (15 cr.)

- COMM 812 - Media Ethics **Credits:** 3
- COMM 814 - Crisis Communication **Credits:** 3
- COMM 818 - Media Criticism **Credits:** 3
- COMM 822 - Children and Media **Credits:** 3
- COMM 853 - Corporate Communications **Credits:** 3
- COMM 876 - Online Media **Credits:** 3
- COMM 881 - Special Topics **Credits:** 3
- COMM 882 - Simulations and Games **Credits:** 3
- COMM 900 - Culture of Cyberspace **Credits:** 3

V. Dissertation (12 cr.)

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. The goal should be to make an original scholarly contribution to the field.

- COMM 995 - Dissertation **Credits:** 1-12

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 Media and Communication Studies and the student's likelihood of success in the research-dissertation phase.

Nursing, PhD

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 **Credits: 3**
- NURS 860 - Faculty Development in Nursing Education **Credits: 3**
- NURS 861 - Pedagogical Practices in Nursing Education **Credits: 3**
- NURS 862 - Curriculum Evaluation in Nursing **Credits: 3**
- NURS 863 - Evaluation in Nursing Education **Credits: 3**
- NURS 864 - Technology in Nursing Education **Credits: 3**
- NURS 993 - Nursing Professoriate Practicum **Credits: 3**

or

- NURS 801 - Doctoral Colloquium in Nursing **Credits:** 1-3

II. Research Core (15 Semester Hours)

- GSR 517 - Statistical Methods II **Credits:** 3
- NURS 951 - Quantitative Nursing Research **Credits:** 3
- NURS 952 - Qualitative Nursing Research **Credits:** 3
- NURS 953 - Research Seminar I **Credits:** 3
- NURS 954 - Research Seminar II **Credits:** 3

III. Support Courses (12 Semester Hours)

- NURS 865 - Student Issues in Nursing Education **Credits:** 3 ^{1,3}
- NURS 802 - Leadership in Nursing: A Case Study Approach **Credits:** 3 ²
- Electives **Credits:** 6

IV. Dissertation (12 Semester Hours)

- NURS 994 - Dissertation Seminar **Credits:** 3
- NURS 995 - Dissertation **Credits:** 1-9

Note

¹ May also take SAHE 631

² May also take ALS 802

³ May also take SAHE 737

Nursing, PhD (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.

Safety Sciences, PhD

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 IUP's Master of Science in Safety Sciences degree program admission requirements and complete IUP's 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

- Must have a master's degree in safety sciences or a closely related field such as industrial hygiene, environmental health, public 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, work experience or taking additional coursework. Applicants will also be required to demonstrate an ability to conduct independent research through a thesis, published research article, report reflecting critical thinking skills 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 if required, 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
- Example of written work, e.g., thesis, articles, reports, etc.
- GRE scores

For this review, a "competitive applicant" would have these characteristics:

- Has at least 5 years of quality work experience in an occupational health and safety-related field
- Holds relevant professional certifications, such as CSP, CIH, CHMM, or PE
- Has generated a quality thesis as part of attaining their MS degree or peer-reviewed publications
- Have GRE scores, on average, in the upper 50% in the three exam areas (analytical writing, verbal reasoning and quantitative reasoning) or a GRE score in the upper 30% in any one of the three areas

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>.

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 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, 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, at least 24 hours of the 54 hours in the degree program will be offered through distance education during the fall and spring terms. Two courses will typically 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.

Required Course Work

I. Pedagogy Courses (6 Semester Hours)

- SAFE 800 - Pedagogical Practices in Safety Education **Credits: 3**
- SAFE 808 - Curriculum Evaluation in Safety Education **Credits: 3**

II. Advanced Applied Research Courses (9 Semester Hours)

- SAFE 810 - Applied Research I: Experimental Design **Credits: 3**
- SAFE 811 - Applied Research II: Multivariate Analysis **Credits: 3**
- SAFE 812 - Applied Research III: Tests and Measurements **Credits: 3**

III. Safety Management Courses (12 semester hours from the following list)

- SAFE 802 - Safety Management Systems **Credits: 3**
- SAFE 804 - Legal Aspects of Safety Sciences **Credits: 3**
- SAFE 805 - Strategies in Risk Control **Credits: 3**
- SAFE 809 - Human Performance and Organizational Safety Theory **Credits: 3**
- SAFE 873 - Disaster Preparedness **Credits: 3**

IV. Technical Safety and Colloquium Courses (15 semester hours from the following list)

- SAFE 801 - Environmental Impact Analysis and Documentation **Credits: 3**
- SAFE 803 - Epidemiological Analysis in Safety Sciences **Credits: 3**
- SAFE 806 - Advanced Topics in Environmental Health and Safety **Credits: 3**
- SAFE 807 - Doctoral Colloquium in Safety Sciences **Credits: 3**

- SAFE 814 - Advanced Topics in Ergonomics **Credits:** 3
- SAFE 815 - Advanced Topics in Industrial Hygiene **Credits:** 3
- SAFE 874 - Fire Safety in Building Design **Credits:** 3

V. Dissertation (12 semester hours)

- SAFE 995 - Dissertation **Credits:** 1-12

School Psychology, PhD

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. Students can also enter with a masters degree and receive credit for applicable graduate-level coursework based on a review by the department. 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 MEd 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

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 **Credits: 3**

Pre-Summer - Summer II

- EDSP 576 - Foundations of Behavior Analysis **Credits: 3**
- GSR 615 - Elements of Research **Credits: 3**

Year 1 - Fall

- EDSP 711 - Introduction to School Psychology **Credits: 3**
- EDSP 789 - Advanced Psychometric Theory **Credits: 3**
- EDSP 748 - Advanced Studies in Behavioral Problems **Credits: 3**
- PSYC 835 - Adult Psychopathology **Credits: 3**

Year 1 - Spring

- EDSP 813 - Academic Assessment **Credits: 3**
- GSR 615 - Elements of Research **Credits: 3**
- EDSP 746 - Learning and Instruction **Credits: 3**
- EDSP 766 - Biological Bases of Behavior **Credits: 3**

Year 1 - Summer I

- EDSP 705 - Multicultural Issues in Schools and Communities **Credits: 3**
- EDSP 755 - Practicum in School Psychology **Credits: 1-3**

Year 1 - Summer II

- PSYC 810 - Historical Trends in Psychology **Credits: 3**
- PSYC 852 - Behavioral, Cognitive, and Affective Basis of Behavior **Credits: 3**

Year 2 - Fall

- EDSP 745 - Counseling for School Psychologists **Credits: 3**
- EDSP 863 - Assessment of Personality and Behavior **Credits: 3**
- EDSP 812 - Cognitive Assessment **Credits: 3**
- EDSP 747 - Psychology of Human Development **Credits: 3**

Year 2 - Spring

- EDSP 814 - Advanced Assessment of Low Incidence Disabilities **Credits: 3**
- EDSP 760 - Group Counseling for School Psychologists I **Credits: 3**
- EDSP 849/ EDSP 949 - Advanced Practicum in School Psychology and Supervision **Credits: 3**

- EDSP 818 - Instructional Consultation **Credits: 3**

Year 2 - Summer I

Year 2 - Summer II

- PSYC 836 - Personality and Psychotherapy **Credits: 3**
- Elective - 3 credits

Year 3 - Fall - Doctoral Only

- EDSP 911 - Legal and Ethical Principles in School Psychology **Credits: 3**
- EDSP 942 - Neuropsychology of Children's Learning Disorders **Credits: 3**
- EDSP 915 - Doctoral Seminar in Applied Educational Research **Credits: 3**
- Elective

Year 3 – Spring – Doctoral Only

- EDSP 916 - Doctoral Seminar in Advanced Educational Research **Credits: 3**
- EDSP 978 - School Counseling Practicum **Credits: 3**
- PSYC 858 - Advanced Social Psychology **Credits: 3**
- Elective

Year 3 - Summer I - Doctoral Only

- EDSP 945 - Clinical Supervision in Psychology **Credits: 3**
- EDSP 849/EDSP 949 - Advanced Practicum in School Psychology and Supervision **Credits: 3**

Year 3 - Summer II

- EDSP 975 Supervision of Pupil Services **Credits: 3 (Optional)**

Internship and Dissertation (18 cr.)

- EDSP 952 - School Psychology Internship **Credits: 9**
- EDSP 995 - Dissertation **Credits: 9**

Total 123 cr.

Certificate Programs and Certifications

Certificate

Academic Advising Graduate Certificate

The Graduate Certificate in Academic Advising is designed for individuals interested in working in academic advising in higher education institutions. The certificate provides specialized, hands-on training and specific strategies in academic advising for college students. The certificate requires 12 hours of graduate credit.

Program Requirements (12 cr)

- DVST 605 - Foundations of Academic Advising **Credits: 3**
- DVST 731 - Capstone in Developmental Education **Credits: 3**
or
- SAHE 731 - Practicum in Student Affairs **Credits: 3**
- SAHE 625 - Student Development in Higher Education **Credits: 3**
- SAHE 631 - Student Development in Higher Education II **Credits: 3**

Administration and Leadership PK-12 Principal Certification, MEd

Administration and Leadership PK-12 Principal Certification Eligibility Track offers candidates the opportunity to earn a Master's Degree and certification as a building-level administrator. Applicants must have an earned Bachelor's Degree and PDE Instructional or Specialist Certification enroll to take six, 3-credit courses and two, 6-credits internships to earn both a Master's Degree and a PK-12 Principal Certification (with successful completion of Praxis and approval from PDE). Students are required to complete two, 180-hour internships, one being an elementary internship and the other being a secondary internship, within their school districts

Program Requirements (30 cr)

- MEDU 761 - Connecting Community and School **Credits: 3**
- MEDU 762 - Teaching Academically-Diverse Learners **Credits: 3**
- MEDU 763 - Educational Research and Practical Application **Credits: 3**
- MEDU 764 - Educational Technology for Today and Tomorrow **Credits: 3**
- MEDU 765 - Curriculum, Assessment, and Reflection **Credits: 3**
- EDAD 798 - Principal Internship **Credits: 12**
*EDAD 798 is repeated as students are required to complete two, 180-hour internships, one being an elementary internship and the other being a secondary internship.

Autism Spectrum Disorder Certificate

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 **Credits:** 3 (with 10 Hour Field Experience)
- EDEX 750 - Assessment for Instructional Planning for Students with Autism Spectrum Disorders **Credits:** 3 (with 30 Hour Field Experience)
- EDEX 751 - Instructional Interventions and Methods for Students with Autism Spectrum Disorder **Credits:** 3 (with 30 Hour Field Experience)
- EDEX 755 - Professional Collaboration and Team Building for Special Educators **Credits:** 3 (with 10 Hour Field Experience)

Total 12 cr.

Behavior Analysis Graduate Certificate

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>). 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 **Credits: 3**
- EDSP 748 - Advanced Studies in Behavioral Problems **Credits: 3**
- EDSP 758 - Advanced Behavioral Assessment and Intervention **Credits: 3**
- EDEX 750 - Assessment for Instructional Planning for Students with Autism Spectrum Disorders **Credits: 3**
- EDEX 753 - Research Seminar in Special Education **Credits: 3**
- EDSP 911 - Legal and Ethical Principles in School Psychology **Credits: 3**

Total 18 cr.

Business, Computers and Information Technology Certificate

This credential is designed for individuals desiring to obtain K-12 certification by the Pa Dept of Education (PDE) in Business, Computers and Information Technology. The credential meets the requirements outlined by the PA Dept of Education.

Specific criteria must be met prior to admittance to ensure all PDE certification requirements are met. These include:

- 1) Must have a bachelor's degree or higher
- 2) 12 credit hours completed in undergraduate or graduate business-related curriculum in the following manner: 3 cr hours business math/finance/accounting/business statistics; 3 cr hours marketing/management; an additional 6 cr from curriculum covered by topics of: economics/technology/ programming/information sciences
- 3) Per PDE requirements for Teacher Education, 6 cr of Math and 6 cr of English must have been completed.

NO GRE/GMAT required. Coursework is all taught at the graduate level and may be transferred into a masters program upon formal request.

Program Requirements (24 cr)

- MEDU 761 - Connecting Community and School **Credits: 3**
- MEDU 762 - Teaching Academically-Diverse Learners **Credits: 3**
- MEDU 764 - Educational Technology for Today and Tomorrow **Credits: 3**
- MEDU 765 - Curriculum, Assessment, and Reflection **Credits: 3**
- BTED 511 - Methods in Business and Information Technology I **Credits: 3**
- BTED 512 - Methods in Business and Information Technology II **Credits: 3**
- BTED 695 - Professional Semester-Student Teaching **Credits: 12**

Total Credits: 24 cr. (with student teaching) (asynchronous delivery)

* Professional Seminar is statewide, and utilizes both synchronous communication evaluation (zoom) and face-to-face evaluation

**Pre-requisites for entering this program: Include 2 Math classes, 2 English classes (current prerequisite) at the undergraduate level

English 7-12 Teaching 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.

Course Requirements

I. Core Courses (9 cr.)

- EDUC 552 - Teaching of English and Communication in the Secondary School **Credits: 3**
- ENGL 518 - Young Adult Literature **Credits: 3**

Choose one (ESOL Pedagogy elective):

- ENGL 526 - ESL Methods and Materials **Credits: 3**
- ENGL 625 - Introduction to TESOL **Credits: 3**
- ENGL 644 - ESOL Teaching Methodology, Materials, and Instructional Technology **Credits: 3**

II. Courses in Teaching, Learning, and Schools (6 cr.)

- EDSP 705 - Multicultural Issues in Schools and Communities **Credits: 3**
- EDEX 650 - Exceptional Children and Youth **Credits: 3**

III. Professional Practice (9 cr.)

- EDUC 542 - Pre-Student Teaching Clinical Experience II **Credits: 1-3**
- ENGL 698 - Internship **Credits: 3-6**

Total Credit Hours (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). If a student has less than a 3.0 GPA at the time of application, the student must pass the PAPA (Pre-service Academic Performance Assessment exam) or Praxis CORE exams and submit official scores to the Post-Bac. Director and the College of Education and Communications along with the application.
- 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 (GIS) 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 **Credits: 3**
- GEOG 516 - Introduction to Geographic Information Systems **Credits: 3 *****
- GEOG 624 - Technical Issues in GIS **Credits: 3**

II. Elective Courses (9 cr.)

- GEOG 514 - Map and Photograph Interpretation **Credits: 3**
- GEOG 521 - Enterprise GIS Management **Credits: 3**
- GEOG 618 - GIS Applications Development **Credits: 3 ***
- GEOG 675 - Spatial Analysis Techniques **Credits: 3 ***
- GEOG 680 - Seminar **Credits: 3-6 ****
- GEOG 681 - Special Topics **Credits: 3 ****
- GEOG 699 - Independent Study **Credits: 1-6 ****

Note

* 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.

Total 18 cr.

Geospatial Intelligence Analysis

The certificate in Geospatial Intelligence Analysis prepares students to undertake the use, processing and analysis of imagery, imagery intelligence, and geospatial information to describe, assess, and visually depict physical features and geographically-referenced activities on the Earth's surface for intelligence purposes. Students will learn the context, geographic information science, spatial analysis, and geointelligence tradecraft techniques to be well prepared to enter the workforce as an entry to secondary-level geospatial intelligence analysts for federal intelligence agencies or private intelligence contractors.

Requirements

This 21-credit program educates students in the use of geospatial technologies, spatial problem-solving, human and physical geographic knowledge, and intelligence tradecraft techniques. The Certificate in Geospatial Intelligence Analysis integrates knowledge and technical skills with critical geospatial thinking to prepare students for careers in the rapidly-expanding geospatial intelligence field.

Program Requirements

GEOG 515 Introduction to Remote Sensing

GEOG 516 Introduction to Geographic Information Systems

GEOG 588 Geospatial Intelligence Capstone

GEOG 624 Technical Issues in GIS

GEOG 655 Advanced Remote Sensing

GEOG 618 GIS Application Development OR GEOG 675 Spatial Analysis Techniques

PLSC 565 Intelligence Process and Policy

Total 21 cr.

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 Pennsylvania 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. Students without a master's degree or master's degree equivalence may wish to consider coupling this certification with the IUP Masters of Education Program.

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 **Credits: 3**
- EDAD 798 - Principal Internship **Credits: 12** (two 6-credit internships)

Total credits: 15 cr.

Reading Specialist Certificate

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 **Credits: 3**
- LTCY 607 - Diverse Texts for Literacy Instruction **Credits: 3**
- LTCY 635 - Differentiated Literacy Instruction to Meet the Needs of All Learners **Credits: 3**
- LTCY 644 - Writing Development and Instruction **Credits: 3**
- LTCY 701 - Assessment and Acceleration **Credits: 3**
- LTCY 702 - Literacy Instruction Across Disciplines **Credits: 3**
- LTCY 705 - Literacy Leadership and Collaboration **Credits: 3**
- LTCY 770 - Practicum and Seminar for Reading Specialists I **Credits: 3**
- LTCY 771 - Practicum and Seminar for Reading Specialists II **Credits: 3**

Total 27 cr.

Simulation and Technology Certificate

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.

Admission Requirements

Current R.N. license, baccalaureate degree with a minimum 2.6 GPA.

The Certificate Will Include the Following Courses:

- NURS 555 - Healthcare Informatics **Credits: 3**
or
- HSAD 555 - Health Care Informatics **Credits: 3**
- NURS 711 - Simulation in Nursing Education **Credits: 3**
- NURS 864 - Technology in Nursing Education **Credits: 3**

If Education Track:

- NURS 722 - Measurement and Evaluation in Nursing Education **Credits: 3**
or
- NURS 723 - Program Development in Nursing Education **Credits: 3**
or
- NURS 725 - Teaching Strategies for Nursing Curricula **Credits: 3**

If Administrative Track:

- NURS 619 - Leadership in Health Care **Credits: 3**
or
- NURS 729 - Nursing Administration **Credits: 3**
or
- NURS 732 - Organizational Behavior in Health Care Administration **Credits: 3**

Total 18 cr.

Special Education Certificate

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 pre K-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/Behavioral Disorders, Learning Disabilities, or Brain Injury **Credits: 3**
- EDEX 578 - Education of Persons with Intellectual/Developmental Disabilities and Physical/Multiple Disabilities **Credits: 3**
- EDEX 752 - Assessment of Persons with Disabilities **Credits: 3**
- EDEX 754 - Advanced Instructional Design in Special Education **Credits: 3**
- EDEX 785 - Practicum and Internship **Credits: 3-9 (severe)**
- EDEX 558 - Transition Assessment and Planning for Youth with Disabilities **Credits: 3 (required for 7-12 certification)**
or
- EDEX 755 - Professional Collaboration and Team Building for Special Educators **Credits: 3 (required for PreK-8 certification)**

Note

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

Total 18 cr.

Supervision of Pupil Services Certificate

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 - Exceptional Children and Youth **Credits: 3**
- EDSP 711 - Introduction to School Psychology **Credits: 3**
- EDSP 717/ EDSP 817 - Evaluating the Effectiveness of Program Interventions **Credits: 3**
- EDSP 812 - Cognitive Assessment **Credits: 3**
- EDSP 813 - Academic Assessment **Credits: 3**
- EDSP 818 - Instructional Consultation **Credits: 3**
- EDSP 915 - Doctoral Seminar in Applied Educational Research **Credits: 3**
- EDSP 949 - Advanced Practicum in School Psychology and Supervision **Credits: 3**
- EDSP 952 - School Psychology Internship **Credits: 9**
- EDSP 975 - Supervision of Pupil Services **Credits: 3**

Total 39 cr.

Teaching English to Speakers of Other Languages (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 cr.)

- ENGL 625 - Introduction to TESOL **Credits: 3**
- ENGL 644 - ESOL Teaching Methodology, Materials, and Instructional Technology **Credits: 3**
- ENGL 649 - Introduction to Research in Applied Linguistics and TESOL **Credits: 3**
- ENGL 725 - Second Language Literacy **Credits: 3**

II. Electives (6 cr.)

- ENGL 754 - World Englishes in Composition and Applied Linguistics **Credits: 3**
- ENGL 742 - Cross-Cultural Communication **Credits: 3**
- ENGL 734 - Linguistics and the English Teacher **Credits: 3**
- ENGL 641 - Topics in ESL Pedagogy **Credits: 3**
- ENGL 723 - Second Language Teaching **Credits: 3**
- ENGL 730 - Research and Practice in the Teaching of College Composition **Credits: 3**

Total 18 cr.

Vocational Administrative Director Certificate

Career and technical directors are responsible for managing a diverse group of tasks, students, faculty, and staff. They are also instrumental in helping others achieve growth, satisfaction, and success with the ultimate objective of improving instruction. The Pennsylvania Department of Education (PDE) requires that all individuals who are employed as a director in a state-approved career and technical center (CTC) must hold state-issued administrator certificate. IUP is the approved provider for administrator certification and offers the program you need to become a certified career and technical administrator.

The IUP Vocational Administrative Director Certificate program is based on standards established by PDE and prepares individuals to assume the role of institutional leader for long-range planning, promoting community involvement, providing for sound business and financial management, and providing facilities and state-of-the-art equipment.

The program is composed of graduate-level courses that are offered in a blended format with most of the instruction completed online and utilizing videoconferencing technology and includes 500 hours of authentic simulation and field or internship experiences which are embedded throughout the program. This requires students to work closely with a CTC administrator to complete the experiences or course assignments in a real-life setting. This approach allows students to gain valuable field experience every step of the way, all while learning the related theory.

This 24-graduate-credit certificate program is designed to be completed in two years.

Completion of all PDE required tests and successful completion of all classes with 3.0 GPA are also required.

Students admitted into the Vocational Administrative Director Certificate Program who later wish to pursue the Master of Education in Career in Technical Administration must apply to the degree program before completing 15 credits.

Admission Criteria:

- Meet the admissions requirements of the School of Graduate Studies and Research.
- Letter of support from career and technical administrator indicating willingness to assist candidate with field experiences.
- Resume indicating a minimum of three years of relevant professional experience in an educational setting that is related to the instructional process.
- A copy of applicant's instructional certificate.

Program Requirements

Professional Education Sequence (24 cr)

- VOED 610 - Personnel & Student Management in Career and Technical Education **Credits: 3**
- VOED 611 - School Code and Policy in Career and Technical Education **Credits: 3**
- VOED 612 - Fiscal Responsibilities and Financial Oversight in Career and Technical Education **Credits: 3**
- VOED 613 - School Law and Legal Responsibilities in Career and Technical Education **Credits: 3**
- VOED 614 - Curriculum Development and Analysis in Career and Technical Education **Credits: 3**
- VOED 615 - Administrative Leadership in Career and Technical Education **Credits: 3**
- MEDU 761 - Connecting Community and School **Credits: 3**
- MEDU 764 - Educational Technology for Today and Tomorrow **Credits: 3**

Other Degrees

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.

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.

Course Descriptions

Accounting

ACCT 500 - Fundamentals of Financial Accounting

Credits: 1.5

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

Credits: 3

Prerequisite: 9 cr. of Accounting

Dual-Listed Class

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.

ACCT 502 - Foundations of Financial Accounting

Credits: 3

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

Credits: 3

Dual-Listed Class

Theory, preparation, and use of budgets, analysis of cost variances, direct costing, and extensive analysis of various cost control and profit planning programs.

ACCT 521 - Federal Tax I

Credits: 3

Dual-Listed Class

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 522 - Federal Tax II

Credits: 3

Introduces the student to the fundamental concepts of federal taxation of corporations, partnerships, estates, and gift transactions. The course creates an awareness and recognition of the tax consequences involved in financial decision-making, with special emphasis on use of professional tax software, the Internal Revenue Code & Regulations, and internet research.

ACCT 531 - Auditing

Credits: 3

Dual-Listed Class

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.

ACCT 532 - Forensic and Internal Accounting

Credits: 3

Introduces forensic auditing in fraudulent financial reporting and employee theft. Prepares students for expert witnessing and the preparation of the final fraud examination report. Also covers the foundation of internal auditing and operational audits performed by internal auditors from fraud and forensic accounting perspective.

ACCT 541 - Accounting for Government and Nonprofit Organizations

Credits: 3

Dual-Listed Class

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 561 - Accounting Systems

Credits: 3

Studies concepts, principles, and procedures of accounting system design, installation, implementation, auditing, and maintenance in relating to system objectives, information requirements, constraints, system elements, and considerations on a computerized.

ACCT 575 - Accounting for the Oil and Gas Industry

Credits: 3

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.

ACCT 581 - Special Topics in Accounting

Credits: 1-3

Prerequisite: Permission of the instructor and Eberly College of Business and Information Technology graduate coordinator.

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.

ACCT 607 - Accounting for Decision Making

Credits: 3

Designed for management personnel who are not accountants but who need to understand the accounting process. Quantitative data analysis of accounting information used by management in formulating decisions and in performance evaluation.

ACCT 681 - Special Topics in Accounting

Credits: 3

Prerequisite: Permission of the instructor and the Eberly College of Business and Information Technology graduate coordinator.

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.

ACCT 698 - MBA Internship

Credits: 1.5 or 3

Prerequisite: Completion of 15 graduate credits and approval of department chair and graduate coordinator.

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.

ACCT 699 - Independent Study in Accounting

Credits: 1-3

Prerequisite: Consent of instructor, departmental chairperson, and dean, Eberly College of Business and Information Technology.

Individual research and analysis of contemporary problems and issues in a concentrated area of study under the guidance of a senior faculty member.

ACCT 795 - Thesis

Credits: 4-6

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

Credits: 3

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.

ACCT 895 - Doctoral Seminar in Accounting & Finance

Credits: 6

Prerequisite: Student in the PhD Program or permission.

Introduces PhD students to basic and applied research in a specific area of business- accounting and finance.

ACCT 995 - Doctoral Dissertation in Accounting & Finance

Credits: 12

Prerequisite: Student in the PhD Program or permission.

Provides a culminating scholarly activity requiring independent original research, literature review, data collection, analysis, and written and oral dissemination of findings. The dissertation defense is required.

Administration and Leadership

ALS 590 - Improving Professional Practice in Instructional Settings

Credits: 1-3

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

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.

ALS 591 - Improving Professional Practice in Instructional Settings

Credits: 1-3

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

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.

ALS 781 - Special Topics

Credits: 3

ALS 801 - Leadership Theories

Credits: 3

Prerequisite: Admission to the program.

Focuses on several leadership theories related to administering social agencies, schools, business, and industry.

ALS 802 - Leadership: A Case Study Approach

Credits: 3

Prerequisite: Admission to the program.

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.

ALS 803 - Leadership: Applied Practice

Credits: 3

Prerequisite: Admission to the program.

Students must develop and implement field project that incorporates leadership and policy theories learned in previous courses.

ALS 805 - Curriculum Evaluation

Credits: 3

Prerequisite: Admission to the program.

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.

ALS 810 - Advanced Topics in Human Development and Learning

Credits: 3

Prerequisite: Admission to the program.

Students will analyze, evaluate, and synthesize theories of human development and learning. Emphasis will be on learning and development throughout the life span.

ALS 820 - Doctoral Seminar in Research Methods

Credits: 3

Prerequisite: Admission to the program.

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.

ALS 825 - Critical Analysis of Issues in Education

Credits: 3

Prerequisite: Admission to the program.

Examines current issues and innovations which are influencing reform in basic and postsecondary education. Relationships between research, policymaking, and implementation will be emphasized.

ALS 830 - Analysis of Effective Instruction

Credits: 3

Prerequisite: Admission to the program.

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.

ALS 845 - Administrative Procedures

Credits: 3

Prerequisite: Admission to the program.

Presents a series of administrative seminars that focus on testing, contract obligations, human relations, federal and state initiatives, and evaluation of the organization.

ALS 850 - School and Community

Credits: 3

Prerequisite: Admission to the program.

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.

ALS 852 - School Evaluation

Credits: 3

Prerequisite: Admission to the program.

Engages students with the concepts, methods, and applications of evaluation. Describes formative and summative evaluation as a means for promoting organizational progress toward identified goals and objectives. Presents instruments, models, and approaches that support the construction of effective and meaningful evaluation practices. Examines a broad range of procedures that could be applied to objectively and comprehensively evaluate district/organizational policies and programs.

ALS 856 - School Administration

Credits: 3

Prerequisite: Admission to the program.

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.

ALS 858 - School Law and Negotiations

Credits: 3

Prerequisite: Admission to the program.

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.

ALS 860 - School Finance

Credits: 3

Prerequisite: Admission to the program.

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.

ALS 881 - Special Topics

Credits: 3

ALS 882 - Research Instrument Design for Leadership Studies

Credits: 3

Prerequisite: Admission to the program.

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.

ALS 883 - Analysis of Qualitative Data in Leadership Studies

Credits: 3

Prerequisite: Admission to the program.

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.

ALS 897 - Research Synthesis

Credits: 3

Prerequisite: Admission to the program, ALS 820, ALS 882, ALS 883.

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 in research courses and extends this work to document progression toward a dissertation proposal and Research Topic Approval Form.

ALS 898 - Internship in Administration and Leadership Studies

Credits: 6

Prerequisite: Admission to the program.

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.

ALS 995 - Dissertation

Credits: 9

Anthropology

ANTH 513 - Archaeology of Coasts

Credits: 3

Assesses the interaction between coastal environments and humans through examination of the archaeological record. Examines coastal modifications by humans based on the archaeological record. Differentiates the processes that lead to the destruction or preservation of archaeological resources related to changing sea level. Develops the ability to examine the archeological record to understand

the interactions between coastal environments, humans, and changing sea levels over the past 15,000 years.

ANTH 514 - Contemporary Native American Cultures

Credits: 3

Dual-Listed Class

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

Credits: 3

Prerequisite: Permission of instructor.

Dual-Listed Class

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.

ANTH 520 - Archaeological Field School

Credits: 2-6

Dual-Listed Class

Introduces 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

Credits: 3

Dual-Listed Class

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

Credits: 6

Prerequisite: Permission of the instructor.

Dual-Listed Class

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.

ANTH 570 - Environmental Archaeology

Credits: 3

Prerequisite: Instructor Permission.

Examine 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 tabulate, graph & interpret data sets; and 3) evaluate select archaeological case studies designed to illustrate how changing 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. Examination of these interactions using a diachronic and comparative perspective, from the evolution of hominins millions of years ago to the Anthropocene EPOCH will be covered.

ANTH 581 - Special Topics

Credits: 3

ANTH 584 - Specialized Methods in Archaeology

Credits: 3

Dual-Listed Class

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.

ANTH 586 - Historic Artifact Analysis

Credits: 3

Dual-Listed Class

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

Credits: 3

Dual-Listed Class

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

Credits: 3

Dual-Listed Class

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

Credits: 3

Dual-Listed Class

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

Credits: 3

Dual-Listed Class

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

Credits: 3

Dual-Listed Class

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

Credits: 3

Dual-Listed Class

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 596 - Human Osteology

Credits: 3

Dual listed with ANTH 496

Offers critical examination of skeletal anatomy to facilitate identification of bones and bone fragments for archaeological and medicolegal purposes. Learn to identify all bones in the human body and apply methods to determine sex, age, ancestry, and stature from skeletal remains.

ANTH 596 - Human Osteology

Credits: 3

Offers critical examination of skeletal anatomy to facilitate identification of bones and bone fragments for archaeological and medicolegal purposes. Learn to identify all bones in the human body and apply methods to determine sex, age, ancestry, and stature from skeletal remains.

ANTH 597 - Forensic Anthropology

Credits: 3

Dual Listed as ANTH 497

Critical examination and discussion of foundational and current methodological and theoretical approaches used in Forensic Anthropology.

ANTH 597 - Forensic Anthropology

Credits: 3

Dual Listed as ANTH 497

ANTH 610 - Archaeological Laws and Ethics

Credits: 3

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

Credits: 3

Prerequisite: Must be taken after or concurrent with ANTH 610, or instructor permission.

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.

ANTH 616 - Pre-Columbian North American Archaeology

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

Dual-Listed Class

Considers conceptual problems and definitions in anthropology. Formulations of a variety of research problems central in anthropology emphasized.

ANTH 698 - Internship

Credits: 3

Prerequisite: 18 hours of graduate credit and permission of the graduate coordinator.

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.

ANTH 699 - Independent Study

Credits: 3

ANTH 714 - Seminar in Cultural Resource Management II: Analysis and Interpretation

Credits: 3

Prerequisite: ANTH 612 or instructor permission.

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.

ANTH 720 - Issues in Historic Preservation

Credits: 3

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.

ANTH 730 - Archaeology of Pennsylvania

Credits: 3

Prerequisite: ANTH 616 and ANTH 618 or instructor permission.

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.

ANTH 740 - Advanced Archaeological Field Methods

Credits: 3-6

Prerequisite: Undergraduate field school and ANTH 612 or instructor permission.

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.

ANTH 745 - Seminar in Archaeological Interpretation

Credits: 3

Prerequisite: ANTH 612, ANTH 714, or instructor permission.

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.

ANTH 795 - Thesis

Credits: 3-6

Prerequisite: Permission of the department graduate committee.

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.

Applied Music

APMU 601 - Private Piano

Credits: 1-4

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 602 - Private Organ

Credits: 1-4

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 603 - Private Harpsichord

Credits: 1-4

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 605 - Private Voice

Credits: 1-4

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 606 - Private Violin

Credits: 1-4

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 607 - Private Viola

Credits: 1-4

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 608 - Private Cello

Credits: 1-4

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 609 - Private Bass Viol

Credits: 1-4

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 610 - Private Flute

Credits: 1-4

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 611 - Private Clarinet

Credits: 1-4

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 612 - Private Oboe

Credits: 1-4

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 613 - Private Bassoon

Credits: 1-4

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 614 - Private Saxophone

Credits: 1-4

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 615 - Private Trumpet

Credits: 1-4

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 616 - Private French Horn

Credits: 1-4

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 617 - Private Trombone

Credits: 1-4

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 618 - Private Euphonium

Credits: 1-4

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 619 - Private Tuba

Credits: 1-4

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 620 - Private Percussion

Credits: 1-4

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 621 - Private Guitar

Credits: 1-4

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 622 - Private Conducting

Credits: 1-4

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 651 - Private Piano

Credits: 1-4

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 652 - Private Organ

Credits: 1-4

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 653 - Private Harpsichord

Credits: 1-4

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 655 - Private Voice

Credits: 1-4

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 656 - Private Violin

Credits: 1-4

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 657 - Private Viola

Credits: 1-4

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 658 - Private Cello

Credits: 1-4

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 659 - Private Bass Viol

Credits: 1-4

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 660 - Private Flute

Credits: 1-4

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 661 - Private Clarinet

Credits: 1-4

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 662 - Private Oboe

Credits: 1-4

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 663 - Private Bassoon

Credits: 1-4

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 664 - Private Saxophone

Credits: 1-4

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 665 - Private Trumpet

Credits: 1-4

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 666 - Private French Horn

Credits: 1-4

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 667 - Private Trombone

Credits: 1-4

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 668 - Private Euphonium

Credits: 1-4

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 669 - Private Tuba

Credits: 1-4

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 670 - Private Percussion

Credits: 1-4

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 671 - Private Guitar

Credits: 1-4

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 672 - Private Conducting

Credits: 1-4

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 701 - Private Piano

Credits: 1-4

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 702 - Private Organ

Credits: 1-4

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 703 - Private Harpsichord

Credits: 1-4

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 705 - Private Voice

Credits: 1-4

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 706 - Private Violin

Credits: 1-4

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 707 - Private Viola

Credits: 1-4

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 708 - Private Cello

Credits: 1-4

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 709 - Private Bass Viol

Credits: 1-4

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 710 - Private Flute

Credits: 1-4

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 711 - Private Clarinet

Credits: 1-4

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 712 - Private Oboe

Credits: 1-4

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 713 - Private Bassoon

Credits: 1-4

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 714 - Private Saxophone

Credits: 1-4

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 715 - Private Trumpet

Credits: 1-4

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 716 - Private French Horn

Credits: 1-4

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 717 - Private Trombone

Credits: 1-4

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 718 - Private Euphonium

Credits: 1-4

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 719 - Private Tuba

Credits: 1-4

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 720 - Private Percussion

Credits: 1-4

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 721 - Private Guitar

Credits: 1-4

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 722 - Private Conducting

Credits: 1-4

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 740 - Graduate Music Recital

Credits: 4

Prerequisite: APMU 651 or higher.

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.

APMU 751 - Private Piano

Credits: 1-4

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 752 - Private Organ

Credits: 1-4

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 753 - Private Harpsichord

Credits: 1-4

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 755 - Private Voice

Credits: 1-4

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 756 - Private Violin

Credits: 1-4

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 757 - Private Viola

Credits: 1-4

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 758 - Private Cello

Credits: 1-4

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 759 - Private Bass Viol

Credits: 1-4

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 760 - Private Flute

Credits: 1-4

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 761 - Private Clarinet

Credits: 1-4

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 762 - Private Oboe

Credits: 1-4

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 763 - Private Bassoon

Credits: 1-4

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 764 - Private Saxophone

Credits: 1-4

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 765 - Private Trumpet

Credits: 1-4

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 766 - Private French Horn

Credits: 1-4

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 767 - Private Trombone

Credits: 1-4

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 768 - Private Euphonium

Credits: 1-4

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 769 - Private Tuba

Credits: 1-4

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 770 - Private Percussion

Credits: 1-4

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 771 - Private Guitar

Credits: 1-4

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 772 - Private Conducting

Credits: 1-4

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.

Art

ART 525 - Critical Practice

Credits: 3

Prerequisite: Graduate Status. Art majors only.

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.

ART 557 - Graduate Studio in Print Media

Credits: 3-18

Prerequisite: Graduate art student standing.

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.

ART 559 - Graduate Studio in Fibers

Credits: 3-18

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

Credits: 3-18

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

Credits: 3-18

Prerequisite: At least one year of undergraduate ceramics.

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.

ART 573 - Graduate Studio in Sculpture

Credits: 3-18

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

Credits: 3-18

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

Credits: 3-18

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

Credits: 3-18

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

Credits: 3

ART 610 - Creative Inquiry: Visual Concepts

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

Prerequisite: Graduate student standing.

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.

ART 681 - Special Topics

Credits: 3

ART 698 - Internship

Credits: 3

ART 699 - Independent Study

Credits: 3

ART 740 - MA Exhibition

Credits: 3

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

Credits: 3

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.

Art Education

ARED 523 - Community-Based and Museum Art Education

Credits: 3

Dual Listed as ARED 423

Examines theories, issues and practices related to art education within community-based and museum settings. Includes art and children's museums, community art programs, afterschool programs, public and collaborative art programs, and emerging organizations, programs, and resources. In these settings, art educators work with a diversity of learners that may include children, adults, community activists and cultural workers, as well as with a diversity of art processes and media. Examines relationships between theory and practice and collaborates with community and museum-based organizations.

ARED 524 - Special Populations in Art Education

Credits: 3

Dual listed as ARED 424

Focuses on special populations as learners in multiple art education contexts including schools, community-based programs, and museums. Includes but is not limited to learners with special needs, English Language Learners, and learners across the life span. Examines Universal Design in education (UDL), therapeutic art education contexts, and curriculum design for multiple learners.

ARED 640 - Curriculum Theory and Practice

Credits: 3

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

Credits: 3

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.

ARED 730 - Teaching Studio Art

Credits: 3

Explores contemporary studio art practices and their application in a variety of educational settings, including higher education and K-12. Students will curate an exhibition based upon personal work, or work of students, and develop curriculum for higher education and/or K-12 settings. These activities will allow students to make connections between personal studio practices and pedagogical implementation of relevant art educational strategies.

Art History

ARHI 507 - Medieval Art

Credits: 3

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

Credits: 3

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

Credits: 3

General survey of art from 1575 to 1775. Will include architecture, sculpture, painting, and other arts.

ARHI 581 - Special Topics

Credits: 3

ARHI 682 - Graduate Seminar in Art History

Credits: 3

Prerequisite: Graduate standing and/or advanced art history major (undergraduate by permission of instructor).

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.

ARHI 683 - Graduate Seminar in Theory and Criticism

Credits: 3

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.

Biochemistry

BIOC 502 - Advanced Biochemistry

Credits: 3

Prerequisite: Instructor permission (credit for an undergraduate course in biochemistry is required).

Dual-Listed Class

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.

Biology

BIOL 501 - Fundamentals of Epidemiology

Credits: 3

Dual-Listed Class

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.

BIOL 502 - Advanced Human Anatomy

Credits: 3

Prerequisite: Graduate student status or permission of instructor; not open to students who have successfully completed BIOL 150.

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.

BIOL 505 - Biology of the Cell-Critical Thinking

Credits: 2

Dual-Listed Class

Introduces the cellular and modular mechanism by which individual cells grow, receive, and respond to internal and external signals and move. Discusses the latest advances in the discipline; students are expected to use current literature on their own as a means of building critical-thinking skills. Emphasizes individual and group activities.

BIOL 509 - Pharmacology Principles and Applications

Credits: 3

Dual-Listed Class

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.

BIOL 520 - Entomology Principle and Practice

Credits: 3

Introduces the biology of insects, including identification and classification. Enables collecting of live insects from different habitats and observation of behavior and ecological roles during outdoor laboratory activities. Emphasizes characteristics unique to insects, such as pollination, metamorphosis, sociality, host plant specificity, and population control.

BIOL 525 - Herpetology

Credits: 3

Dual-Listed Class

Introduces the scientific study of amphibians, reptiles, turtles, and crocodilians, including the taxonomy, phylogenetic relationships, evolutionary history and fossil record, structure and development, natural history, and conservation of each group. Provides field-based exercises and/or field trips as part of the laboratory, which may also include specimen examination and identification, guest speakers, and discussions of both classic and recent scientific literature in herpetology.

BIOL 531 - Ichthyology

Credits: 3

Dual-Listed Class

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.

BIOL 542 - Comparative Vertebrate Anatomy

Credits: 3

Investigates the comparative structure and function of the vertebrate body emphasizing the diverse solutions to the problem of design for survival and the evolutionary mechanisms that provide those solutions.

BIOL 550 - Pymatuning: Field Studies

Credits: 3

Dual-Listed Class

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 551 - Evolutionary Biology

Credits: 3

Dual listed as BIOL 451

Presents the study of evolution and evolutionary biology, including the history of evolutionary theory, natural selection, microevolutionary and macroevolutionary processes, and the phylogenetic history and classification of life on earth. Focuses on learning current laboratory methods in population-level and phylogenetic analysis, presenting and leading peer discussions of important and current research in the field.

BIOL 553 - Plant Physiology

Credits: 3

Dual-Listed Class

Physiological processes occurring in plants are considered in relation to growth, development, and ecology of plants.

BIOL 555 - Animal Behavior

Credits: 3

Prerequisite: One Evolutionary Biology course

Dual-Listed Class

Offers a comparative and integrative overview of how and why animals as diverse as insects and humans behave the way that they do, linking behaviors to the brain, genes, and hormones, as well as to the surrounding ecological and social environments. Demonstrates how researchers use scientific logic to study the underlying mechanisms and evolutionary bases of behavior, with emphasis on how evolutionary theory unifies the various subdisciplines within animal behavior.

BIOL 556 - Ecological Toxicology

Credits: 3

Prerequisite: One year Biology, one year Chemistry.

Dual-Listed Class

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.

BIOL 562 - Vertebrate Endocrinology

Credits: 3

Dual-Listed Class

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

Credits: 3

Prerequisite: Ecology.

Dual-Listed Class

An investigation into the physical, chemical, and biological aspects of inland waters and their interrelationships. Saturday or Sunday labs may be required.

BIOL 564 - Immunology

Credits: 3

Prerequisite: One Microbiology course

Studies the principles, functions, cellular and molecular interactions of innate and adaptive immune mechanisms. Emphasizes the relationship between basic immunology and clinical immunologic diseases. Applies major modern techniques used in immunology.

BIOL 566 - Principles of Virology

Credits: 3

Dual-Listed Class

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

Credits: 3

Dual-Listed Class

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

Credits: 3

Dual-Listed Class

A comprehensive survey of the tree species in eastern North America with an emphasis on Pennsylvania forests.

BIOL 573 - Seedless Vascular Plants: Ferns and Allied Flora

Credits: 3

Dual-Listed Class

A comprehensive survey of morphological and habitat characteristics of seedless vascular plants (generally ferns and their allies) of Pennsylvania and the surrounding states.

BIOL 574 - Spring Flora of the Northeastern U.S.

Credits: 3

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.

BIOL 575 - Mammalogy

Credits: 3

Dual-Listed Class

General discussion of mammals, emphasizing systematics, distribution, and structure-function modifications related to their evolution. A paper is required.

BIOL 576 - Parasitology

Credits: 3

Dual-Listed Class

Studies parasitic protozoa, flatworms and roundworms. Emphasizes species parasitizing humans and includes their classification, structure, biochemistry, physiology, molecular biology, pathogenicity, ecology, and epidemiology

BIOL 577 - Neurobiology

Credits: 3

Dual-Listed Class

Understand the fundamental properties of neuronal membranes, their ionic channels and the molecular mechanisms underlying these properties. Understand the basic mechanisms of synaptic organization, including the roles of neurotransmitters and neuromodulators. Apply basic neuronal network concepts to the understanding of motor control, vision, somatic sensations, audition, consciousness, autonomic functions, language, emotions, attention, and learning and memory. Utilize basic mechanisms of neuronal development and experience to understand the role that each plays in central nervous system function.

BIOL 579 - Neurobiology of Addiction

Credits: 3

Dual-Listed Class

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 581 - Special Topics

Credits: 3

BIOL 590 - Field Studies in Biology

Credits: 3

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 602 - Biometry

Credits: 3

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

Credits: 1-3

Prerequisite: Permission.

Introduction to advanced techniques and procedures used in biological research. Topics vary.

BIOL 608 - Biology Teaching Practicum

Credits: 2

Prerequisite: Permission of Biology Education Coordinator and Graduate Coordinator.

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.

BIOL 611 - Biology Seminar I

Credits: 1

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

Credits: 1

Prerequisite: BIOL 611

Develops essential skills for the professional biologist, including writing of research proposals and presentation of seminars.

BIOL 621 - Biology of Animal Taxonomy

Credits: 3

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

Credits: 3

Prerequisite: One undergraduate course in Ecology

Study of bird populations, behavior, and movement, including the full annual cycle. This course has a strong focus of understanding concepts and methodologies that are used to better understand avian ecology and to advance the conservation of birds and their habitats. Portions of this course will be off-campus and in field settings. Students will be expected to learn how to identify local bird species by sight and sound.

BIOL 623 - Animal Morphogenesis

Credits: 3

Prerequisite: Embryology or Comparative Anatomy, Organic Chemistry, and Genetics.

Factors that influence and control the differentiation of organs, tissues, and cells. Emphasis placed on experimental procedures and methods.

BIOL 624 - Advanced Entomology

Credits: 3

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 630 - Gene Editing Tools in Medicine and Biotechnology

Credits: 3

Focuses on editing concepts and techniques involved in modern biotechnology as it relates to genome engineering. Understand the principles and techniques governing the gene editing tools such as CRISPR in microbiology, agriculture, animal sciences, and human health. Emphasizes acquisition of the

knowledge and skills necessary to undertake gene editing using CRISPR. Addresses issues concerning their ethical, legal, and social implications in the United States and the world.

BIOL 631 - Plant Ecology

Credits: 3

Prerequisite: Field Botany, Plant Taxonomy, or general knowledge of local flora.

Nature and distribution of vegetation in relation to environmental factors. Field investigations of local plant communities constitute bulk of lab work.

BIOL 640 - Animal Ecology and Conservation

Credits: 3

Prerequisite: One undergraduate course in Ecology

Examines a) the broad ecological relationships between animals and their environments; b) how effective conservation strategies must consider ecological and sociopolitical realities; and c) research and monitoring methodologies used to develop or evaluate conservation efforts. Portions of this course will be off-campus and in field settings.

BIOL 641 - Population and Community Ecology

Credits: 3

Prerequisite: Introductory course in ecology or permission of instructor.

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.

BIOL 645 - Behavioral Ecology

Credits: 3

Prerequisite: One course in Ecology

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

Credits: 3

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

Credits: 3

Prerequisite: A course in physiology or permission of the instructor.

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.

BIOL 653 - Animal Physiology

Credits: 4

Prerequisite: Animal Biology.

Digestion and molecular transport of nutrients, gaseous exchanges, excretion, muscular activity and control, and endocrine and neural elements.

BIOL 662 - Molecular Genetics of Eukaryotes

Credits: 3

Prerequisite: Genetics, Organic Chemistry, and Biochemistry or permission of the instructor.

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.

BIOL 664 - Pathogenic Microbiology

Credits: 3

Prerequisite: Microbiology.

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.

BIOL 681 - Special Topics

Credits: 1-3

Prerequisite: Permission of instructor.

Advanced topics in biology.

BIOL 699 - Independent Studies

Credits: 3

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

Credits: 1-6

Business Communication

BCOM 670 - Organizational Behavior and Communication

Credits: 3

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.

Business Law

BLAW 541 - The Law of Property Oil and Gas Leasing I

Credits: 3

Prerequisite: BLAW 633 (Graduate)

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.

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

Credits: 3 cr

Prerequisite: BLAW 633 and BLAW 541

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.

BLAW 581 - Special Topics in Business Law

Credits: 1-3

Prerequisite: Permission of the instructor and the Eberly College of Business and Information Technology graduate coordinator.

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.

BLAW 633 - Case Problems in Business Law

Credits: 3

Prerequisite: BLAW 235 or equivalent.

Deals with solution of case problems as applied to various topics in the field of business law.

BLAW 640 - Advanced Alternative Dispute Resolution

Credits: 1.5

Prerequisite: Student must be enrolled in IUP's MBA program

Focuses on advanced Alternative Dispute Resolution principles and the application of those principles in simulated negotiations, mediations, and arbitrations. Emphasizes international business disputes and how to effectively overcome the barriers to the successful resolution of such disputes as a result of cultural issues and differences in governing laws and regulations. Concludes with a simulation taking students through all steps of a complex dispute, including identification of the dispute parameters, an information negotiation with the other parties, the mediation of the dispute with an independent mediator, and finally the arbitration of the dispute before a panel of three arbitrators. Dispute resolution ethics will be explored throughout the course.

Business Technology Education

BTED 511 - Methods in Business and Information Technology I

Credits: 3

Included are instruction in the general methods of teaching and evaluating business courses. Major emphasis is on the planning for instruction. Creative techniques and procedures for effectively teaching and managing the classroom are evaluated. Opportunities will be provided to incorporate appropriate content and materials to allow for students with special learning needs. Current issues in vocational education such as advisory committees, adult education, and federal legislation are included.

This course includes general methods of teaching and evaluation plus methods and evaluation in basic business courses. Unit plans, lesson plans, and unit tests are emphasized. Techniques and procedures of teaching and classroom management are discussed.

BTED 512 - Methods in Business and Information Technology II

Credits: 3

Course 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 570 - Technology Applications for Education

Credits: 3

Dual-Listed Class

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

Credits: 3

BTED 600 - Curriculum Development in Career and Technical Education

Credits: 3

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.

Cross-Listed: VOED 600

BTED 601 - Curriculum and Instructional Leadership in Career and Technical Education

Credits: 3

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.

Cross-Listed: VOED 601

BTED 602 - Conference Leadership and Communication Methods in Career and Technical Education

Credits: 3

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.

Cross-Listed: VOED 602

BTED 603 - Management of Instruction for Career and Technical Education

Credits: 3

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.

Cross-Listed: VOED 603

BTED 604 - Curriculum Supervision in Career and Technical Education

Credits: 3

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.

Cross-Listed: VOED 604

BTED 605 - Policy Administration

Credits: 3

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.

Cross-Listed: VOED 605

BTED 606 - Leadership for Career and Technical Educators

Credits: 3

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.

Cross-Listed: VOED 606

BTED 607 - Organizations and Structure for Career and Technical Education

Credits: 3

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.

Cross-Listed: VOED 607

BTED 608 - Legal and Legislative Issues in Career and Technical Education

Credits: 3

Provides an understanding of the current legal and legislative issues that exist in the implementation of career and technical education.

Cross-Listed: VOED 608

BTED 609 - Innovations in E-Learning

Credits: 3

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.

Cross-Listed: COMM 609

BTED 695 - Professional Semester-Student Teaching

Credits: 12

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

Credits: 1-3

Prerequisite: Consent of instructor, departmental chairperson, and Eberly College of Business and

Information Technology dean.

Individual research and analysis of contemporary problems and issues in a concentrated area of study under the guidance of a senior faculty member.

Business Technology Support and Training

BTST 542 - Training Methods in Business and Information Technology Support

Credits: 3

Dual-Listed Class

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

Credits: 1-3

Prerequisite: Permission of instructor and Eberly College of Business and Information Technology graduate coordinator.

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.

BTST 614 - Instructional Computing Basics

Credits: 3

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

Credits: 3

Prerequisite: BTST 614 or permission of the instructor.

Provides an introduction to designing and producing computer-generated multimedia presentations and courseware for industry and education.

BTST 642 - Training with Technology

Credits: 3

Prerequisite: BTST 542

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.

BTST 644 - IT Policy and Strategy

Credits: 3

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.

Cross-Listed: IFMG 644

BTST 650 - Issues and Trends in Business/Workforce Development

Credits: 3

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

Credits: 3

Provides participants with up-to-date experience in areas of rapidly changing technology in enduser 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

Credits: 3

Prerequisite: GSR 615

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.

BTST 663 - Project Management for Information Technology Professionals

Credits: 3

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.

Cross-Listed: IFMG 663

BTST 665 - Information Security in the Enterprise

Credits: 3

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.

BTST 670 - Organizational Communication

Credits: 3

This course investigates all levels of organizational communication. Students will identify, evaluate, and develop communications appropriate for various internal and external constituents of the corporation. In this process, students learn principles of corporate imaging, identity, and reputation building. Students will study and apply advanced communication skills required for leadership, executive responsibilities, and group dynamics. Emphasis will be on active learning. Cases and exercises will help develop team building skills and insights on the problems faced by teams. The influence of emerging team structures will be explored through simulations and various communication technologies including the virtual environment.

BTST 675 - Web Design Theory and Application

Credits: 3

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

Credits: 1-3

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 hightechnology settings.

BTST 681 - Special Topics

Credits: 3

BTST 682 - Integrating the Enterprise, IS Function, and Technologies

Credits: 3

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.

Cross-Listed: IFMG 682

BTST 698 - MBA Internship

Credits: 1.5 or 3

Prerequisite: Completion of 15 graduate credits and approval of department chair and graduate coordinator.

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.

BTST 699 - Independent Study in Business

Credits: 1-3

Prerequisite: Consent of instructor, departmental chairperson, and Eberly College of Business and Information Technology dean.

Individual research and analysis of contemporary problems and issues in a concentrated area of study under the guidance of a senior faculty member.

BTST 795 - Thesis

Credits: 1-3

Child Development and Family Relations

CDFR 510 - Infant and Toddler Development

Credits: 3

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.

CDFR 526 - Techniques of Parent Education

Credits: 3

Dual-Listed Class

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.

CDFR 527 - Administration of Child Development Centers

Credits: 3

Dual-Listed Class

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.

CDFR 581 - Special Topics

Credits: 3

Chemistry

CHEM 500 - Special Studies

Credits: 1-6

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

Credits: 3

Dual-Listed Class

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.

CHEM 521 - Advanced Instrumental Methods of Analysis

Credits: 3

Dual-Listed Class

Modern instrumental analysis, including electrical, spectrophotometric, x-rays, gas chromatography, and other methods. Four-hour lecture/laboratory.

CHEM 531 - Organic Molecular Structure Determination

Credits: 3

Dual-Listed Class

Examines modern and advanced methods of elucidation of the structures of organic molecules, including NMR, MS, and IR. The fundamental physical and chemical principles of each method will be discussed. The focus is on structure determination by interpretation of data (spectra), either individually or combined. Emphasizes structure determination as currently applied in the chemical industry.

CHEM 535 - Current Topics in Organic Chemistry

Credits: 3

Dual-Listed Class

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

Credits: 3

An introduction to spectroscopy and molecular structure. Lecture—three hours.

CHEM 560 - Chemistry and Physics of Materials

Credits: 3

Dual-Listed Class

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.

CHEM 561 - Modern Diffraction

Credits: 3

Dual-Listed Class

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.

CHEM 581 - Special Topics

Credits: 3

CHEM 600 - Seminar

Credits: 2

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

Credits: 3

Theoretical inorganic chemistry and, in particular, structure, periodicity, coordination chemistry, bonding, and chemistry of non-aqueous solvents. Lecture—three hours.

CHEM 620 - Analytical Chemistry

Credits: 3

Theoretical principles of analytical chemistry. Lecture—three hours.

CHEM 623 - Physical and Chemical Methods of Separation

Credits: 3

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

Credits: 3

Principles of physical chemistry will be applied to the study of organic reaction mechanisms. Lecture—three hours.

CHEM 646 - Biochemistry

Credits: 3

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

Credits: 3

CHEM 690 - Research

Credits: 3-6

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

Credits: 1-6

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

Credits: 4

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.

CHEM 799 - Internship Experience

Credits: 4

Prerequisite: The student must have a minimum of 12 IUP graduate credits earned and a minimum 3.0 grade point average.

Students must complete a 3-6 month internship with a company sponsor. Students must initiate and secure an internship with the industrial sponsor with guidance from the Graduate PSM Coordinator for internship sites. The work will focus on solving a technical problem of interest to the corporate sponsor and should meet the outcomes defined by the student's advisory committee. The internship work may be completed in whole, or in part, in residence with approval of the student's committee. An internship committee will be comprised of the student's academic advisor, one additional faculty member, an industry supervisor and the dean of the College of Natural Sciences and Mathematics.

Communications Media

COMM 503 - Scriptwriting

Credits: 3

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

Credits: 3

Prerequisite: Permission from the instructor.

Dual-Listed Class

A hands-on course designed to help students learn about the production process involving onlocation 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.

COMM 511 - Theories & Principles of Strategic Communication

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

Prerequisite: COMM 571 with a minimum grade of C.

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.

COMM 577 - Freelancing and Entrepreneurship in Media

Credits: 3

Prerequisite: Communications Media major or minor.

Dual listed as COMM 477

Explores the professional fields of freelance, enterprise start-up and entrepreneurship in media and communication. Surveys professional, financial and legal responsibilities for freelance and self-employed media professionals. Identifies and compares different types of freelance and media businesses to develop business plans.

COMM 581 - Special Topics

Credits: 3

Prerequisite: Permission of the instructor.

Advanced topics, offered on an experimental basis, within the discipline of communications but not dealt with in other courses.

COMM 590 - Improving Professional Practice in Instructional Settings

Credits: 1-3

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

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.

COMM 591 - Improving Professional Practice in Instructional Settings

Credits: 1-3

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

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.

COMM 600 - Instructional Design and Development

Credits: 3

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

Credits: 3

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.

COMM 609 - Innovations in E-Learning

Credits: 3

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.

Cross-Listed: BTED 609

COMM 611 - The Strategic Communicator

Credits: 3

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

Credits: 3

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

Credits: 3

Prerequisite: COMM 513

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.

COMM 631 - Interactive Multimedia

Credits: 3

Introduces students to methods of presentation design and production, engaging multiple media platforms in a variety of professional and industrial contexts.

COMM 681 - Special Topics

Credits: 3

Prerequisite: Permission of the instructor.

Intensive study of a specific area of communications beyond the scope of other courses. Offering depends upon instructor and student interest.

COMM 698 - Internship

Credits: 2-6

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

Credits: 1-3

Prerequisite: Successful completion of the basic course in the medium selected; the professor's approval.

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.

COMM 712 - Global Strategic Communication

Credits: 3

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

Credits: 3

Prerequisite: COMM 512, COMM 513

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.

COMM 714 - Crisis Communication

Credits: 3

Corequisite: COMM 801 or permission of instructor

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 nonprofit settings.

COMM 715 - Research and Professional Development in Strategic Communication

Credits: 3

Prerequisite: COMM 511, COMM 512, GSR 615.

Provides a broad overview of the diverse perspectives and approaches to strategic communication. Using theory, research, writing, and production concepts from previous coursework, students will be engaged in the purposeful creation of strategic communication products or a research project that reflects the goals of the MS in Strategic Communication program. This project-driven course provides a capstone course experience for students in the Master of Science in Strategic Communication.

COMM 737 - Audio Production

Credits: 3

Dual listed with COMM 837

Provides students with a solid foundation in audio recording theory, techniques and practice. Students are introduced to the theoretical concepts and develop the technical skills that form the basis of modern

recording. Topics covered include three-dimensional mixing and placement, fundamentals of sound, recording techniques and effects processing. Students will work with professional grade recording equipment and digital audio software to produce voiceovers, music pieces and audio storytelling.

COMM 745 - Health Communication

Credits: 3

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 781 - Special Topics

COMM 793 - Internship

Credits: 6

Prerequisite: COMM 715, departmental approval

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.

COMM 795 - Thesis

Credits: 1-6

Prerequisite: COMM 715, Departmental approval.

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. This course may be taken for duplicate credit.

COMM 800 - Communication Research Statistics

Credits: 3

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

Credits: 3

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

Credits: 3

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 814 - Crisis Communication

Credits: 3

Corequisite: COMM 801 or permission of instructor

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 nonprofit settings.

COMM 815 - Teaching Communications Media

Credits: 3

Corequisite: COMM 801

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.

COMM 818 - Media Criticism

Credits: 3

Corequisite: COMM 801

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.

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

Credits: 3

Corequisite: COMM 801

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.

COMM 825 - Quantitative Methods in Communication Research

Credits: 3

Prerequisite: COMM 800

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.

COMM 828 - Qualitative Methods in Communications Research

Credits: 3

Examine the theoretical basis and history of qualitative methods within the field of communications media. Students will design and implement qualitative research strategies. They will also become familiar with common ethical practices in research and prepare documents to submit to the Internal Review Board.

COMM 830 - Media Preproduction

Credits: 3

Focuses on preproduction activities such as script treatments, storyboarding, scriptwriting, editing, and production management. Case studies and real-world situations are used to better understand the planning of media development. A preproduction plan is developed for a substantial media production in one of more production areas including audio, video, film, photography, animation, games, or simulations.

COMM 831 - Multiplatform Media Production

Credits: 3

Prerequisite: COMM 830 Media Preproduction

Introduces students to the ways in which various narrative forms are conceptualized and produced across multiple media platforms. Using theory, research, writing and production concepts from previous coursework, students will be engaged in the purposeful creation of media content. Students will assess the significant cultural, social, and political changes resulting from media convergence. This project-driven course provides opportunities for students to conceptualize, create, and produce a multimedia project.

COMM 832 - Media Production

Credits: 6

Prerequisite: COMM 830

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.

COMM 834 - Organizational Video Production

Credits: 3

Prerequisite: COMM 830 Media Preproduction

Focuses on the development and production of non-advertisement video content supporting employees and customers within the context of an organization's goals. Emphasis is placed on analyzing organizational goals, developing an action plan, writing a communication strategy, developing a pre-production plan, and producing video content. Students will produce informational videos for distribution via online video services.

COMM 835 - Global Media, Communication and Culture

Credits: 3

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 836 - Video Production

Credits: 3

Prerequisite: COMM 830

Explores the practice of modern video production with emphasis on executing preproduction planning, including scripting, directing, lighting, camera operation, audio, and editing. This is a project-driven course that provides opportunities for student collaboration to produce a video project.

COMM 837 - Audio Production

Credits: 3

Prerequisite: COMM 830 Media Preproduction

Dual listed with COMM 737

Provides students with a solid foundation in audio recording theory, techniques and practice, and prepares them to teach audio production courses at the collegiate level. Students are introduced to the theoretical concepts and develop the technical skills that form the basis of modern recording. Topics covered include three-dimensional mixing and placement, fundamentals of sound, recording techniques and effects processing. Students will work with professional grade recording equipment and digital audio software to produce voiceovers, music pieces and audio storytelling.

COMM 838 - Digital Photography and Imaging

Credits: 3

Prerequisite: COMM 830 Media Preproduction

Introduces digital photography and imaging as a tool for communications and media production. Explores methods of expressing ideas in images through the visual language of photography. Emphasizes proper technical skills and the creative application of the photographic medium. Utilizes photographic theory to support the development of an aesthetic and creative vision.

COMM 841 - Documentary Production

Credits: 3

Prerequisite: COMM 830

Provides an overview of documentary production practices, skills, and techniques, which students then apply in producing a substantial, professional-grade media documentary. Platforms may include audio, radio, photography, video and other documentary production platforms.

COMM 845 - Health Communication

Credits: 3

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

Credits: 3

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

Credits: 3

Prerequisite: Prerequisite or co-requisite: COMM 801

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.

COMM 857 - Doctoral Seminar in Communications Culture and Technology

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

Prerequisite: COMM 801

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.

COMM 910 - Advanced Doctoral Research in Communications

Credits: 3

Prerequisite: COMM 825, and COMM 828.

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.

COMM 995 - Dissertation

Credits: 1-12

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.

Community Planning & Geospatial Techniques

MCPL 504 - Transportation Planning

Credits: 3

Introduces the major themes and methods of transportation planning, particularly in an urban context. It is project oriented and supported by readings from the scholarly literature covering themes such as modes of transit, land use implications, and commercial development. Theoretical concepts are applied to transportation planning problems through network analysis and urban transportation demand modeling laboratories.

MCPL 516 - Introduction of Geographic Information Systems

Credits: 3

Introduces foundational geographic information systems (GIS) concepts and techniques in the context of tasks and analyses that professional planners undertake. 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.

Cross-Listed: GEOG 516

MCPL 552 - Planning Analysis and Methods

Credits: 3

Focuses on selected analytical methods and plan-making techniques in urban and regional planning. Examines basic elements of strategic and comprehensive planning process, assesses demographic and socio-economic trends in communities, and formulates planning goals and development strategies to prepare comprehensive plans and planning reports at local and regional scales.

MCPL 558 - Planning Law

Credits: 3

Introduces principles of land use law. 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.

MCPL 570 - Housing and Community Development Policy

Credits: 3

Examines a range of issues relating to U.S. housing and community development policy issues, including the role housing plays in building and strengthening neighborhoods and communities. Covers the structure of housing and related financial markets as well as the economic and social bases for government to intervene in these markets.

MCPL 625 - Environmental Planning: Values, Ethics, and Assessment

Credits: 3

Discusses environmental values and ethics from cultural and economic perspectives. The environmental policies and the assessment techniques required to evaluate the environmental impact of land development choices are defined and applied. (Course may also be offered as GEOG 625 ; may not be taken for duplicate credit under same title).

MCPL 627 - GeoDesign

Credits: 3

Provides introduction and application of the theory and techniques of the GeoDesign framework. Involves data-driven decision making for collaborative community development and land-use planning and is an emerging conceptual framework for place-based decisions and designs. Integrates knowledge of community planning, decision making, landscape design, and geospatial techniques to produce a professional quality project.

MCPL 652 - Planning Policy, Implementation and Administration

Credits: 3

Focuses on the planning, implementation and administration of policies to manage the location, timing, type, and intensity of land development. Exposes students to the public involvement in which community plans are developed and implemented.

MCPL 658 - Planning Theory and Process

Credits: 3

Provides an overview of the development of planning theory as it applies to urban and regional areas. Examines the evolution of planning theory, major contributors who have influenced the field, current normative, conceptual, methodological issues, and the various roles planners play in practice, and the ethical dilemmas they face.

MCPL 796 - Capstone Project

Credits: 3

Prerequisite: MCPL 516 , MCPL 552 , MCPL 558 , MCPL 652

Focuses on recent research in urban and regional planning. Students carry out an applied research project on a topic of local or regional importance.

Computer Science

COSC 581 - Special Topics in Computer Science

Credits: 3

Prerequisite: Permission of instructor.

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.

Counselor Education

COUN 590 - Improving Professional Practice in Instructional Settings

Credits: 1-3

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

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.

COUN 591 - Improving Professional Practice in Instructional Settings

Credits: 1-3

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

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.

COUN 613 - Counseling Children

Credits: 3

Prerequisite: COUN 617, COUN 637 or equivalents.

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.

COUN 615 - Counseling Across the Life Span

Credits: 3

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.

COUN 617 - Basic Counseling Skills

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

Prerequisite: This course is limited to students in the School Counseling Program.

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.

COUN 628 - Management of a Professional School Counseling Program

Credits: 3

Prerequisite: COUN 621

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.

COUN 629 - Group Procedure (child)

Credits: 3

Emphasis is placed upon understanding and developing group techniques related to the development and growth of children. Group counseling with children is covered.

COUN 634 - Assessment Procedures for Clinical Mental Health Counselors

Credits: 3

Prerequisite: This course is limited to students in the Clinical Mental Health Program.

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.

COUN 636 - Career Counseling

Credits: 3

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.

COUN 637 - Counseling Theories

Credits: 3

Specific counseling theories and corresponding interventions with children, adolescents and adults will be covered. Integrating theories to match client concerns will be emphasized.

COUN 639 - Group Counseling Theory and Experience

Credits: 3

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.

COUN 657 - Individual Counseling Practicum (Clinical Mental Health)

Credits: 3

Prerequisite: COUN 617, COUN 637, and COUN 720. Students enrolled in MEd program are restricted from taking this course.

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.

COUN 659 - Secondary School Counseling Practicum

Credits: 3

Prerequisite: COUN 617, COUN 621, COUN 637, COUN 639, COUN 720. 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.

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).

COUN 667 - Elementary School Counseling Practicum

Credits: 3

Prerequisite: COUN 617, COUN 621, COUN 637, COUN 629 or COUN 639, COUN 720. 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.

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.

COUN 669 - Group Counseling Practicum (Clinical Mental Health)

Credits: 3

Prerequisite: COUN 617, COUN 639, and COUN 720. Students enrolled in MEd program are restricted from taking this course.

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.

COUN 670 - Human Sexuality Issues for Counselors

Credits: 3

Prerequisite: COUN 615

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.

COUN 671 - Diagnostic and Treatment Issues for Counselors

Credits: 3

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.

COUN 672 - Counseling and Consulting Within Systems

Credits: 3

Prerequisite: COUN 617 and COUN 637

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.

COUN 673 - Wellness-Based Counseling

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

Prerequisite: COUN 617

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.

COUN 678 - Spiritual Issues in Counseling

Credits: 3

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

Credits: 3

COUN 682 - Counseling Students/Clients with Disabilities

Prerequisite: COUN 617 - Basic Counseling Skills

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.

COUN 699 - Independent Study

Credits: 1-3

Topic pertinent to the individual's program of study. By permission of department chairperson and advisor only.

COUN 710 - Clinical Mental Health Counseling

Credits: 3

Prerequisite: COUN 720

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.

COUN 720 - Professional Orientation and Ethical Practice in Counseling

Credits: 3

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

Credits: 3

Prerequisite: COUN 617, COUN 637 or equivalents.

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.

COUN 755 - Field Experience

Credits: 6

Prerequisite: Core and practicum courses. COUN 615, COUN 617, COUN 618, COUN 636, COUN 637, COUN 639, COUN 720. Additionally, MED students are required to have taken COUN 621, COUN 624, COUN 628, COUN 659, and COUN 667. MA students are also required to have taken COUN 634, COUN 657, COUN 669, COUN 671, and COUN 710

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.

COUN 795 - Thesis

Credits: 3

COUN 798 - Internship in Counselor Education

Credits: 3 or 6

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

Credits: 3

Prerequisite: Restricted to students admitted to the Counselor Education Doctoral Program.

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.

COUN 870 - Advanced Counseling

Credits: 3

Prerequisite: Restricted to students admitted to the Counselor Education Doctoral Program.

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.

COUN 880 - Preparation for the Professoriate: Leadership and Advocacy in the Counseling Profession

Credits: 3

Prerequisite: Restricted to students admitted to the Counselor Education Doctoral Program.

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.

COUN 890 - Quantitative Research and Statistical Analysis in Counselor Education

Credits: 3

Prerequisite: This course is limited to doctoral students in the Department of Counseling.

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.

COUN 900 - Preparation for the Professoriate: Teaching in Counseling

Credits: 3

Prerequisite: Restricted to students admitted to the Counselor Education Doctoral Program.

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.

COUN 910 - Counseling Supervision and Consultation

Credits: 3

Prerequisite: Restricted to students admitted to the Counselor Education Doctoral Program.

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.

COUN 920 - Qualitative Methodology in Counselor Education

Credits: 3

Prerequisite: Restricted to students admitted to the Counselor Education Doctoral Program.

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.

COUN 930 - Doctoral Practicum in Counseling

Credits: 3

Prerequisite: Restricted to students admitted to the Counselor Education Doctoral Program.

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.

COUN 940 - Preparation for the Professoriate: Research in Counselor Education and Supervision

Credits: 3

Prerequisite: Restricted to students admitted to the Counselor Education Doctoral Program.

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.

COUN 950 - Advanced Research in Counselor Education: Mixed Methods Approaches

Credits: 3

Prerequisite: COUN 890 and COUN 920

Introduces and prepares students for basic Mixed Methods research inquiry relevant to counseling and counselor education. Mixed Methods research theory, design, data collection, data analysis and representation, validity, reliability, and ethical considerations in counselor education and supervision will all be emphasized. Provides a deeper understanding of methods of research in educational settings. Exploration of advanced methodological principles within theoretical frameworks and procedures will provide the framework for this course.

COUN 960 - Doctoral Field Experience in Counselor Education

Credits: 3

Prerequisite: COUN 860, COUN 870, COUN 880, COUN 890, COUN 900, COUN 910, COUN 920, COUN 930, and COUN 940.

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.

COUN 995 - Dissertation

Credits: 6

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.

Criminology

CRIM 600 - Criminological Theory

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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 - Quantitative Strategies for Analysis in Criminology

Credits: 3

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 - Ethical and Philosophical Issues in Criminology

Credits: 3

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 - Terrorism

Credits: 3

Prerequisite: Enrolled in CRIM or PLSC graduate program, or permission of instructor.

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.

Cross-Listed: PLSC 744

CRIM 748 - Criminal Violence: Theory, Research, and Issues

Credits: 3

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 765 - Criminal Justice Planning and Evaluation

Credits: 3

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 - Seminar in Contemporary Corrections

Credits: 3

An examination of current issues and problems in contemporary corrections.

CRIM 781 - Special Topics

Credits: 3

CRIM 785 - Seminar in Contemporary Juvenile Justice and Delinquency

Credits: 3

An examination of current issues and problems in contemporary juvenile justice and delinquency.

CRIM 790 - Seminar in the Contemporary Judicial System

Credits: 3

An examination of current issues and problems in the contemporary judicial system.

CRIM 791 - Synthesis Project

Credits: 3

Prerequisite: CRIM 600, CRIM 601, and CRIM 605. Required of all non-thesis master's students. 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.

CRIM 795 - Thesis

Credits: 6

CRIM 798 - Graduate Readings in Criminology

Credits: 3

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 - Independent Study

Credits: 3

CRIM 810 - Advanced Theoretical Criminology

Credits: 3

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

Credits: 3

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 818 - Quantitative Strategies for Analysis in Criminology

Credits: 3

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 820 - Advanced Quantitative Methods

Credits: 3

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 830 - Ethical and Philosophical Issues in Criminology

Credits: 3

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 840 - Advanced Criminal Justice Policy

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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 865 - Criminal Justice Planning and Evaluation

Credits: 3

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 870 - Seminar in Contemporary Corrections

Credits: 3

An examination of current issues and problems in contemporary corrections.

CRIM 881 - Special Topics

Credits: 3

CRIM 885 - Seminar in Contemporary Juvenile Justice and Delinquency

Credits: 3

An examination of current issues and problems in contemporary juvenile justice and delinquency.

CRIM 890 - Seminar in the Contemporary Judicial System

Credits: 3

An examination of current issues and problems in the contemporary judicial system.

CRIM 898 - Graduate Readings in Criminology

Credits: 3

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 899 - Independent Study

Credits: 3

CRIM 901 - Advanced Applied Research I

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

A review of prominent models of effective teaching and the applications of selected models of teaching theory to specific criminological courses.

CRIM 995 - Dissertation

Credits: 1-12

Curriculum and Instruction

CURR 590 - Improving Professional Practice in Instructional Settings

Credits: 1-3

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

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.

CURR 591 - Improving Professional Practice in Instructional Settings

Credits: 1-3

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

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.

CURR 781 - Special Topics

Credits: 1-3

CURR 798 - Supervised Doctoral Internship

Credits: 6

Prerequisite: Permission only.

Applied field experience chosen by doctoral students with the approval of the dissertation advisory committee.

CURR 905 - Implementation and Evaluation of Curriculum

Credits: 3

Prerequisite: Admission to the Curriculum and Instruction doctoral program.

Provides students with a frameworks for the systematic implementation and evaluation of research-based curricula.

CURR 910 - Advanced Topics in Human Development and Learning

Credits: 3

Prerequisite: Admission to the Curriculum and Instruction doctoral program.

Students analyze, evaluate, and synthesize theories of human development and learning. Emphasis is on learning and development throughout the life span.

CURR 915 - Writing for Professional Publication

Credits: 3

Prerequisite: Admission to the Curriculum and Instruction doctoral program and permission of program coordinator.

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.

CURR 918 - Qualitative Research Design in Education

Credits: 3

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.

CURR 920 - Quantitative Research Methods in Education

Credits: 3

Provides students with the requisite quantitative research skills to evaluate published research in education.

CURR 925 - Critical Analysis of Issues in Education

Credits: 3

Prerequisite: Admission to the Curriculum and Instruction doctoral program.

Examines current issues, innovations, and persistent controversies that influence reform in basic and postsecondary education.

CURR 930 - Effective Teaching and Supervision

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

Prerequisite: Admission to the Curriculum and Instruction doctoral program and permission of program coordinator.

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.

CURR 951 - Innovations in Curriculum and Instruction

Credits: 3

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

Credits: 3

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

Credits: 3

Prerequisite: CURR 905

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.

CURR 981 - Special Topics

Credits: 1-3

CURR 982 - Quantitative Data Analysis in Education

Credits: 3

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

Credits: 3

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

Credits: 9

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.

Developmental Studies

DVST 600 - Principles of Developmental Education

Credits: 3

Introduces students to the foundations, principles, and history of developmental education. In addition, the course includes legislation impacting developmental education, purpose and need for developmental education, teaching and learning theories in developmental education, best practices and delivery methods of developmental education, and examination of the developmental student holistically.

DVST 605 - Foundations of Academic Advising

Credits: 3

Examines the foundations of academic advising as essential components of student success and retention in higher education. Topics include academic advising, research on academic advising, models and delivery systems, theoretical frameworks, advising skills, and advising diverse populations.

DVST 700 - Curriculum Design in Developmental Education

Credits: 3

Examines curriculum design in developmental education with a focus on applying theoretical approaches to teaching and learning, implementing design elements, assessing student needs, managing successful programs, developing learning delivery models, and reviewing emerging research and issues

DVST 710 - Strategies for Teaching Developmental Students

Credits: 3

Focuses on the institutional development, intellectual development, learner development, and self-management for effective teaching and learning in developmental education. Topics include instructional and learner theories, andragogy, assessment and evaluation techniques, best practices for

instruction and intervention, and holistic approaches to developmental students from diverse socio-economic, cultural, and ethnic backgrounds.

DVST 720 - Critical Issues in Developmental Education

Credits: 3

Introduces graduate students to the social, political, ethical, and economic issues in developmental education, followed by the students' own targeted research to produce publishable research papers on specific aspects of developmental education. This course emphasizes students' analytical, evaluative, and creative learning skills. Students will have the opportunity to study in-depth topics of particular interest to them. This course is one of five required courses that make up the Developmental Studies Track for the MEDU Master's in Education program, preparing educators and administrators in post-secondary education to assist under-prepared and ill-prepared students.

DVST 731 - Capstone in Developmental Education

Credits: 3

Provides the opportunity to immerse oneself into the field of developmental education. Reinforces skills and knowledge acquired through coursework and provides students an opportunity to apply theory to practice. Receives mentoring and guidance from professionals in the field of developmental education.

Early Childhood Education

ECED 590 - Improving Professional Practice in Instructional Settings

Credits: 1-3

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

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.

ECED 591 - Improving Professional Practice in Instructional Settings

Credits: 1-3

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

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.

ECED 760 - Child Study and Assessment

Credits: 3

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

Credits: 3

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

Credits: 3

Prerequisite: ECED 760, ECED 761, and ECED 764.

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.

ECED 764 - Early Childhood Curriculum

Credits: 3

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

Credits: 3

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

Credits: 3

Prerequisite: ECED 761, ECED 764, or permission of instructor.

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.

Economics

ECON 501 - Foundations of Modern Economics

Credits: 3

Survey of micro and macroeconomics designed for the student who is not already well grounded in the field.

ECON 545 - International Trade

Credits: 3

Prerequisite: Permission of the instructor.

Study of the microeconomic segment of international specialization and exchange, including theories of international trade and their application to commercial policies; historical survey and examination of current problems of international trade; and the institutional setting of international trade.

ECON 546 - International Payments

Credits: 3

Prerequisite: Permission of the instructor.

Study of the macroeconomic segment of international specialization and exchange, including analysis of balance of payments, exchange rates, and the mechanism of international economic and monetary adjustments; international macroeconomic policy; historical survey and examination of current international financial problems; and the institutional setting of international payments.

ECON 562 - Energy Economics

Credits: 3

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

Credits: 1.5

Prerequisite: ECON 121, ECON 122, MATH 121 or the equivalent, or permission of instructor.

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.

ECON 634 - Managerial Economics

Credits: 3

Prerequisite: ECON 121, ECON 122, MATH 121 or the equivalent, or permission of instructor.

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.

ECON 699 - Independent Study

Credits: 1-6

Prerequisite: ECON 501, credits of "C" or better in six semester hours of Principles of Economics, or permission of instructor.

Directed readings, written assignments, and research on a specific topic determined by the student and the instructor.

ECON 812 - Quantitative Research Methods I

Credits: 3

Prerequisite: Student in the PhD business program.

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.

Cross-Listed: ISDS 812

ECON 813 - Quantitative Research Methods II

Credits: 3

Prerequisite: ISDS 812/ECON 812 - Quantitative Research Methods I

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.

Cross-Listed: ISDS 813

ECON 820 - Managerial Economics for Decision Making and Leadership

Credits: 3

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 satisfy specified objectives of the organization. Includes building quantitative models to apply to plausible situations, using appropriate, computer-assisted decision techniques.

Education Administration

EDAD 590 - Improving Professional Practice in Instructional Settings

Credits: 1-3

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

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.

EDAD 591 - Improving Professional Practice in Instructional Settings

Credits: 1-3

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

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.

EDAD 660 - School Finance

Credits: 3

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

Credits: 3

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 798 - Principal Internship

Credits: 12

EDAD 860 - School Finance

Credits: 3

Prerequisite: For approved Administration and Leadership Studies candidates or permission of the instructor.

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.

Special Education

EDEX 509 - Instructional Strategies for Gifted Learners

Credits: 3

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

Credits: 3

Prerequisite: Certification or EDEX 650 or EDEX 111 or EDEX 300.

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.

EDEX 520 - Characteristics and Etiology: A Theoretical and Practical Introduction to Autism Spectrum Disorder

Credits: 3

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 523 - Instruction of English Language Learners with Special Needs

Credits: 2

Provides certified teachers with the necessary methods to meet the needs of students who are Culturally and Linguistically Diverse and Exceptional (CLDE). Based on a multicultural approach to

learning instructional methods, assessment, language acquisition techniques, and the use of multiple resources will be addressed.

EDEX 558 - Transition Assessment and Planning for Youth with Disabilities

Credits: 3

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

Credits: 3

Prerequisite: PSYC 101.

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.

EDEX 569 - Education of Persons with Emotional/Behavioral Disorders, Learning Disabilities, or Brain Injury

Credits: 3

Dual-Listed Class

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.

EDEX 578 - Education of Persons with Intellectual/Developmental Disabilities and Physical/Multiple Disabilities

Credits: 3

Dual-Listed Class

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.

EDEX 581 - Special Topics

EDEX 590 - Improving Professional Practice in Instructional Settings

Credits: 1-3

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

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.

EDEX 591 - Improving Professional Practice in Instructional Settings

Credits: 1-3

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

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.

EDEX 599 - Independent Study in Special Education

Credits: 1-3

Individual students develop research studies in consultation with a faculty member. Departmental consent required.

EDEX 621 - Models of Teaching for Gifted Learners

Credits: 3

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

Credits: 3

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 - Special Topics

Credits: 3

EDEX 750 - Assessment for Instructional Planning for Students with Autism Spectrum Disorders

Credits: 3

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

Credits: 3

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

Credits: 3

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 - Research Seminar in Special Education

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

EDEX 785 - Practicum and Internship

Credits: 3-9

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

Credits: 3

EDEX 853 - Research Seminar in Special Education

Credits: 3

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.

Education of Persons with Hearing Loss

EDHL 590 - Improving Professional Practice in Instructional Settings

Credits: 1-3

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

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.

EDHL 591 - Improving Professional Practice in Instructional Settings

Credits: 1-3

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

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.

Educational and School Psychology

EDSP 523 - Educational Programming for Gifted Learners

Credits: 3

Dual-Listed Class

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 576 - Foundations of Behavior Analysis

Credits: 3

This course introduces students to behavior analysis through discussion of its philosophical assumptions, theoretical underpinnings, and basic concepts.

EDSP 577 - Assessment of Student Learning

Credits: 3

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

Credits: 3

EDSP 590 - Improving Professional Practice in Instructional Settings

Credits: 1-3

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

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.

EDSP 591 - Improving Professional Practice in Instructional Settings

Credits: 1-3

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

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.

EDSP 624 - Social, Emotional, and Cultural Factors in the Education of Gifted Learners

Credits: 3

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

Credits: 3

Prerequisite: Departmental chairperson permission.

Designed for those students who wish to do independent research in special areas.

EDSP 699 - Independent Study

Credits: 3

EDSP 704 - Advanced Educational Psychology

Credits: 3

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

Credits: 3

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

Credits: 3

This course will introduce the participant to the profession of school psychology. 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 children's education; and the provision of assessment, placement, and intervention services in the public schools.

EDSP 717 - Evaluating the Effectiveness of Program Interventions

Credits: 3

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

Credits: 3

Prerequisite: For approved School Psychology Candidates

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.

EDSP 746 - Learning and Instruction

Credits: 3

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

Credits: 3

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 - Advanced Studies in Behavioral Problems

Credits: 3

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 - Practicum in School Psychology

Credits: 1-3

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 758 - Advanced Behavioral Assessment and Intervention

Credits: 3

Prerequisite: EDSP 748 or approval by program coordinator

Examines behaviors encountered in a variety of settings, including homes, schools, workplaces, and communities, from the perspective of a functional analysis of behavior. Contemporary issues related to identification and assessment of behavior and development of comprehensive intervention protocols will be the primary focus. Students will apply ethical and legal implications to the delivery of services to a diverse population.

EDSP 760 - Group Counseling for School Psychologists I

Credits: 3

Prerequisite: Approved School Psychology candidates or permission of instructor.

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.

EDSP 763 - Assessment of Personality and Behavior

Credits: 3

Prerequisite: For approved school psychologist candidates or permission of the instructor.

Provides an introduction to personality and behavioral assessment techniques.

EDSP 766 - Biological Bases of Behavior

Credits: 3

Explores basic neuroanatomy, neurophysiology, and psychopharmacology as the bases of behavior, cognition, and affect.

EDSP 781 - Special Topics

Credits: 3

EDSP 789 - Advanced Psychometric Theory

Credits: 3

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

Credits: 3

EDSP 804 - Advanced Educational Psychology

Credits: 3

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

Credits: 3

Prerequisite: For approved School Psychology candidates.

Provides school psychology students with the knowledge and skills needed to administer, score, and interpret selected individually administered tests of intelligence.

EDSP 813 - Academic Assessment

Credits: 3

Prerequisite: For approved School Psychology candidates.

Provides school psychology students with the knowledge and skills needed to administer, score, and interpret selected individually administered tests of academic skills.

EDSP 814 - Advanced Assessment of Low Incidence Disabilities

Credits: 3

Prerequisite: EDSP 812 and EDSP 813.

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.

EDSP 817 - Evaluating the Effectiveness of Program Interventions

Credits: 3

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 818 - Instructional Consultation

Credits: 3

Prerequisite: For approved school psychology candidates; must have taken or take concurrently with EDSP 812 and EDSP 813; permission of instructor.

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.

EDSP 846 - Learning and Instruction

Credits: 3

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 848 - Advanced Studies in Behavioral Problems

Credits: 3

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 849 - Advanced Practicum in School Psychology and Supervision

Credits: 3

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.

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.

EDSP 852 - School Psychology Internship

Credits: 3

Prerequisite: 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.

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.

EDSP 855 - Practicum in School Psychology

Credits: 1-3

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 863 - Assessment of Personality and Behavior

Credits: 3

Prerequisite: For approved school psychologist candidates or permission of the instructor.

Provides an introduction to personality and behavioral assessment techniques.

EDSP 911 - Legal and Ethical Principles in School Psychology

Credits: 3

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

Credits: 3

Prerequisite: EDSP 818

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.

EDSP 916 - Doctoral Seminar in Advanced Educational Research

Credits: 3

Prerequisite: EDSP 915

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.

EDSP 942 - Neuropsychology of Children's Learning Disorders

Credits: 3

Prerequisite: Student in the Ph.D. school psychology program or permission of Program Director.

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.

EDSP 945 - Clinical Supervision in Psychology

Credits: 3

Prerequisite: Designated by Doctoral Program Coordinator.

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.

EDSP 949 - Advanced Practicum in School Psychology and Supervision

Credits: 3

Prerequisite: Grade of A or B in all core courses. Course is for approved School Psychology doctoral students.

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.

EDSP 952 - School Psychology Internship

Credits: 9

Prerequisite: Approved school psychology doctoral candidates must pass all core coursework prior to enrolling in the internship course.

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.

EDSP 953 - Child Neuropsychology

Credits: 3

Prerequisite: EDSP 812 or permission of the instructor.

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.

EDSP 964 - Seminar in School Psychology I

Credits: 3

Prerequisite: Permission of instructor.

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.

EDSP 965 - Seminar in School Psychology II

Credits: 3

Prerequisite: Permission of the instructor.

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.

EDSP 975 - Supervision of Pupil Services

Credits: 3

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, homeschool 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

Credits: 3

Prerequisite: Permission of the instructor.

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.

EDSP 978 - School Counseling Practicum

Credits: 3

Prerequisite: EDSP 745 - Counseling for School Psychologists

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.

EDSP 981 - Special Topics

Credits: 3

EDSP 994 - Introduction to the Dissertation

Credits: 3

Prerequisite: Doctoral candidacy.

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.

EDSP 995 - Dissertation

Credits: 9

Education

EDUC 542 - Pre-Student Teaching Clinical Experience II

Credits: 1-3

Prerequisite: Admission to post-baccalaureate or masters level program teacher education program
Develops and refines competencies that relate to individual major fields of teaching through university-based instruction as well as participation and teaching in preK-grade 12 field experience. Also incorporates strategies and techniques for the delivery of instruction to all students, including those with special and English language learning needs.

EDUC 552 - Teaching of English and Communication in the Secondary School

Credits: 3

A prerequisite to student teaching in English. Introduces current professional practices in the teaching of English and communications in secondary school.

EDUC 581 - Special Topics

Credits: 1-3

EDUC 590 - Improving Professional Practice in Instructional Settings

Credits: 1-3

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.
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.

EDUC 591 - Improving Professional Practice in Instructional Settings

Credits: 1-3

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

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.

EDUC 702 - Reading Practicum: Diagnostic Case

Credits: 3

EDUC 703 - Reading Practicum: Remedial Case

Credits: 3

EDUC 731 - Curriculum Development

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 1-3

EDUC 858 - School Law and Negotiations

Credits: 3

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.

Education, Training, and Instructional Technology

ETIT 600 - Introduction to Instructional Design

Credits: 3

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.

ETIT 610 - Learning Management Systems

Credits: 3

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.

ETIT 617 - Distance Education Technology

Credits: 3

Explores the use of education technology to enhance effectiveness and efficiency in developing teaching and training. Learners explore the use of technologies used in school and non-school teaching or training settings, conduct critical evaluation of technologies currently used in industry (both educational and corporate), and integrate these technologies into the teaching/training and development environment. Current research in the area of educational technology and its practical implications for teaching and training are also discussed.

ETIT 620 - Introduction to Adult and Community Education

Credits: 3

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.

ETIT 621 - The Adult Learner

Credits: 3

This course focuses on the adult as learner, including physiological, psychological, and sociological characteristics and their effect on learning.

ETIT 622 - Program and Project Planning

Credits: 3

Provides a hands-on approach to planning education and training programs and instructional design projects. ETIT 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.

ETIT 623 - Organizational Leadership in Adult and Community Education

Credits: 3

Prerequisite: Permission.

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.

ETIT 624 - Designing Accessible and Inclusive Instruction

Credits: 3

Provides training on accessibility practices and to demonstrate techniques for creating instruction that is accessible and inclusive for learners with disabilities. This course will provide students with foundational knowledge of disability laws, tips for creating accessible learning materials, and introduce the principles of Universal Design for Instruction.

ETIT 625 - Teaching Adults

Credits: 3

Prerequisite: Permission.

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.

ETIT 630 - Digital Pedagogy

Credits: 3

Examines effective teaching using digital tools across a variety of learning environments. Topics include preparing to teach using digital technologies, basic considerations of synchronous and asynchronous

content delivery, strategies for teaching and assessing learners, and issues related to special needs and inclusion that arise in digital learning environments.

ETIT 635 - Issues in Distance Education

Credits: 3

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.

ETIT 640 - Community-Based Education

Credits: 3

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.

ETIT 650 - Current Topics in Adult and Community Education

Credits: 3

Prerequisite: Permission of the instructor.

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.

ETIT 698 - Internship

Credits: 0-6

Prerequisite: Permission of the instructor.

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.

ETIT 699 - Independent Study in Adult and Community Education

Credits: 1-3

Independent study of a topic pertinent to an individual's program of study. Permission of advisor and department chairperson required.

ETIT 700 - Advanced Instructional Design

Credits: 3

Prerequisite: ETIT 600 or Instructor Permission

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.

ETIT 735 - Seminar in Adult and Community Education

Credits: 3

Prerequisite: Permission.

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.

ETIT 744 - Program and Project Evaluation

Credits: 3

Prerequisite: GSR 615 or Instructor Permission.

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.

ETIT 745 - Applied Research in Instructional Design and Technology

Credits: 3

Practical research in instructional design and technology 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.

ETIT 750 - Seminar: Technology and Adult Learning

Credits: 3

Prerequisite: At least twelve completed credits, six each in ETIT and COMM courses, and advisor approval. 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.

ETIT 795 - Thesis

Credits: 6

Students selecting the thesis option will complete a thesis project with a committee consisting of at least three faculty members.

Elementary Education

ELED 581 - Special Topics

Credits: 3

ELED 590 - Improving Professional Practice in Instructional Settings

Credits: 1-3

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

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.

ELED 591 - Improving Professional Practice in Instructional Settings

Credits: 1-3

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

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.

ELED 642 - Mathematics in Elementary School

Credits: 3

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

Credits: 3

Designed for the students who wish to do independent research in special areas.

ELED 698 - Supervised Internship

Credits: 6

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

Credits: 1-3

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

Credits: 3

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

Credits: 3

Prerequisite: Permission of advisor.

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.

ELED 781 - Special Topics

Credits: 3

ELED 795 - Thesis

Credits: 3

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

Credits: 3

Prerequisite: Permission only.

Applied field experience chosen by doctoral students with the approval of the dissertation advisory committee.

ELED 995 - Dissertation

Credits: 1-12

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.

Elementary and Middle School Mathematics

ELMA 581 - Special Topics

Credits: 3

Prerequisite: MATH 152 or equivalent.

Special Topics which go beyond the scope of regular offered courses. The student may take more than one Special Topics offering with the written approval of the advisor. Offered on basis of student interest and available staff.

ELMA 653 - Mathematics for the Gifted Student

Credits: 3

Prerequisite: Methods course in teaching mathematics or consent of instructor.

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.

ELMA 654 - Teaching Problem Solving in the Elementary and Middle School

Credits: 3

Prerequisite: Appropriate major or permission of the instructor.

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.

ELMA 655 - Mathematics for Early Childhood

Credits: 3

Prerequisite: MATH 152 or equivalent.

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.

Employment and Labor Relations

ELR 511 - Contemporary Issues in Hospitality

Credits: 3

Discussion of contemporary issues within the hospitality industry. Students write a series of opinion/reaction papers to present discussion topics.

Cross-Listed: HOSP 511

ELR 526 - Case Studies in Labor-Management Relations

Credits: 3

Dual-Listed Class

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

Credits: 3

Dual-Listed Class

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

Credits: 3

According to student demand, special graduate course on selected topics.

ELR 610 - Employee Rights under Law

Credits: 3

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.

Cross-Listed: HSAD 610

ELR 612 - Labor Relations Practice and Administration

Credits: 3

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

Credits: 3

Introduction to terms, theories, and practice of employment and labor relations in the United States.

ELR 615 - Dispute Settlement

Credits: 3

Review of the theories underlying and legislation supporting labor arbitration, emphasizing development of advocacy skills through simulations of actual disputes.

ELR 616 - Health Law

Credits: 3

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.

Cross-Listed: HSAD 616

ELR 618 - Seminar: Current Issues in Employment and Labor Relations

Credits: 3

Detailed examination of current professional issues in the field.

ELR 619 - Research Methods in Human Resources and Employment and Labor Relations

Credits: 3

Provide graduate students with an introductory course in research methods generally used in behavioral sciences. The course introduces students to research theory, research design, quantitative and qualitative methodologies and technology to analyze and interpret data that supports effective organizational decision-making. Topics include: Human Resource Information Systems (HRIS); data analysis techniques such as HR bench-marking, trend and ratio analysis and balanced scorecards; data mining; and risk management.

Cross-Listed: HSAD 619

ELR 621 - Labor Relations in the Public Sector

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

Survey of current laws, principles, and procedures in use in modern collective bargaining and evolving trends.

ELR 627 - Organizational Behavior

Credits: 3

Examines organization behavior is to help students define and be able to articulate critical factors that affect behavior within public and private organizations. This course studies the impact that individuals, groups, organizational structure and processes have on behavior within organizations. As a result, students will be able to improve their ability to navigate diverse organizational systems as well as manage individuals and teams in large and small organizations.

Cross-Listed: MGMT 627

ELR 631 - Human Resources Management in the Public Sector

Credits: 3

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.

Cross-Listed: HSAD 631

ELR 632 - Compensation Administration

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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 645 - Ethics for Human Resource Practitioners

Credits: 3

Analyze philosophical and practical investigation of the main concepts and theories of ethics, with applications to fundamental moral questions as they arise in different areas of Human Resources. Use of normative elements associated with ethical decision making, as well as the emerging interest in

descriptive ethics, to address important problems human resource managers confront.

ELR 650 - Alternative Work Styles

Credits: 3

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 651 - Conflict Resolution

Credits: 3

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 681 - Special Topics in Employment and Labor Relations

Credits: 3

According to student demand, special graduate courses on selected topics.

ELR 698 - Internship

Credits: 3 or 6

Field experience in employment and labor relations. An internship log and term paper are required.

ELR 699 - Independent Study

Credits: 3

Prerequisite: Approval of department chairperson, college dean, and provost.

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.

ELR 751 - Conflict Resolution

Credits: 3

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.

Cross-Listed: HSAD 751

ELR 795 - Thesis

Credits: 1 to 6

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).

ELR 851 - Conflict Resolution

Credits: 3

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.

Cross-Listed: HSAD 751

Elementary Teacher Certification

ELTC 660 - History, Philosophy, and Ethics in Elementary Education

Credits: 3

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.

ELTC 661 - Integrated Curriculum in the Elementary School

Credits: 3

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.

ELTC 664 - Assessment of Student Learning and Elementary Curriculum

Credits: 3

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.

ELTC 665 - Issues in Elementary Education and Pedagogy

Credits: 3

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.

ELTC 670 - Practicum I (Social Studies, Citizenship, Multicultural Education, and Diversity)

Credits: 3

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.

ELTC 675 - Practicum II (School Law and Professional Practice)

Credits: 3

Prerequisite: Permission.

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.

English

ENGL 515 - English Language Studies for Teachers

Credits: 3

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

Credits: 3

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

Credits: 3

Dual-Listed Class

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 563 - Topics in Global Literature and Film

Credits: 3

Prerequisite: ENGL 202.

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.

ENGL 581 - Special Topics in Language and Literature

Credits: 1-3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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.

ENGL 649 - Introduction to Research in Applied Linguistics and TESOL

Credits: 3

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

Credits: 3

Practical training in special methods and materials of research in English.

ENGL 675 - Literature and the International Student

Credits: 3

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

Credits: 3

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 - Special Topics

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

Explores recent developments in teaching of language, composition, and literature.

ENGL 694 - Observation in Teaching English

Credits: 3

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

Credits: 3

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

Credits: 3-6

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

Credits: 1-3

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 - Language and Cognition

Credits: 3

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 - Language and Social Context

Credits: 3

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 - Second Language Teaching

Credits: 3

Considers trends, issues, and research in second language teaching and assessment; also considers ways teachers can explore teaching beliefs and practices.

ENGL 724 - Second Language Acquisition

Credits: 3

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 - Second Language Literacy

Credits: 3

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 - Research and Practice in the Teaching of College Composition

Credits: 3

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 - Linguistics and the English Teacher

Credits: 3

Examines four key topics: foundations of linguistic thought, applications of linguistics to the teaching of English, classroom discourse patterns, and language pedagogy.

ENGL 742 - Cross-Cultural Communication

Credits: 3

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 - Reading Theory and the College English Teacher

Credits: 3

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 - Identity, Power, and the Multilingual Writer

Credits: 3

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.

ENGL 749 - Advanced Research Seminar

Credits: 3

Prerequisite: 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.

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.

ENGL 753 - Studies in Literature as a Profession

Credits: 3

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 - World Englishes in Composition and Applied Linguistics

Credits: 3

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 - Digital Literacy for the English Professional: A Domain of One's Own

Credits: 3

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 - Digital Composition, Literature, and Pedagogy

Credits: 3

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" eliterature; 3. familiarizes students with changes in the field, exploring exemplary projects of digital scholarship and how they can be integrated into teaching.

ENGL 760 - Teaching College Literature

Credits: 3

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 - American Literature before 1870:

Credits: 3

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. May be repeated for a maximum of 12 credits under a different topic area.

ENGL 762 - American Literature since 1870:

Credits: 3

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. May be repeated for a maximum of 12 credits under a different topic area.

ENGL 763 - British Literature before 1660:

Credits: 3

Studies major figures, movements, or topics within the period. The specific content of the course is determined by the instructor and announced in advance. May be repeated for a maximum of 12 credits under a different topic area.

ENGL 764 - British Literature Since 1660:

Credits: 3

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. May be repeated for a maximum of 12 credits under a different topic area.

ENGL 765 - Literature as Genre:

Credits: 3

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. May be repeated for a maximum of 12 credits under a different topic area.

ENGL 766 - Comparative Literature:

Credits: 3

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. May be repeated for a maximum of 12 credits under a different topic area.

ENGL 767 - Research on Writing Centers and Writing Program Administration

Credits: 3

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.

ENGL 771 - Postmodern Literature:

Credits: 3

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. May be repeated for a maximum of 12 credits under a different topic area.

ENGL 772 - Women's Literature:

Credits: 3

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. May be repeated for a maximum of 12 credits under a different topic area.

ENGL 773 - American or British Minority Literature

Credits: 3

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. May be repeated for a maximum of 12 credits under a different topic area.

ENGL 781 - Special Topics

Courses relating to specialized interests in literature, rhetoric, or linguistics which fulfill special needs or interests. May become permanent course offerings.

ENGL 795 - Thesis

Credits: 6

ENGL 797 - Independent Seminar

Credits: 3

Prerequisite: Permission of relevant program director(s) and instructor.

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.

ENGL 799 - Independent Study

Credits: 1-3

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

Credits: 3

Introduces students to various types of research in Composition and TESOL for examining the transmission of literacy.

ENGL 803 - Language and Cognition

Credits: 3

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 805 - Language and Social Context

Credits: 3

Introduces the study of and empirical research on 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 808 - Technology and Literacy

Credits: 3

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

Credits: 3

Involves both reading about and training in qualitative research methods such as participant observation, interviewing, qualitative surveys/questionnaire, drafting research questions, securing Institutional Review Board approval, coding, and analysis. Also covers dissemination of research findings.

ENGL 820 - Quantitative Research in Composition and Applied Linguistics

Credits: 3

Prerequisite: ENGL 800

Presents students with the conceptual aspects of designing, constructing and analyzing quantitative research in Composition and Applied Linguistics. Also provides students with practical experience designing a quantitative study, constructing appropriate research instruments, acquiring IRB approval, collecting data, analyzing data, and reporting results.

ENGL 823 - Second Language Teaching

Credits: 3

Considers trends, issues, and research in second language teaching and assessment; also considers ways teachers can explore teaching beliefs and practices.

ENGL 824 - Second Language Acquisition

Credits: 3

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 825 - Second Language Literacy

Credits: 3

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 Applied Linguistics.

ENGL 826 - Language Teacher Identities

Credits: 3

Provides a thorough understanding of teacher inquiry and practice as a form of meaning making around who we are as language teachers. Specifically, this course is designed to discuss, synthesize, and apply knowledge of course readings to complicate our language teacher identities in the fields of composition, TESOL, applied linguistics, and teacher education. Coming to understand our language teacher identities

is a complex, fluid, contested, and multiple in nature, and it is this process that we will unfold in our class discussions as well as in our writings.

ENGL 830 - Research and Practice in the Teaching of College Composition

Credits: 3

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 831 - Rhetorical Traditions

Credits: 3

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

Credits: 3

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 834 - Linguistics and the English Teacher

Credits: 3

Examines four key topics: foundations of linguistic thought, applications of linguistics to the teaching of English, classroom discourse patterns, and language pedagogy.

ENGL 835 - Research Design and the Craft of Writing

Credits: 3

Prerequisite: ENGL 815, ENGL 820

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.

ENGL 836 - Autoethnographic Life Writing: Arts Based Research

Credits: 3

Provides a thorough understanding of autoethnography as a method of arts-based research/qualitative research. Specifically, this course is designed to explore, understand, construct (de- and re-construct), and complicate the roles of auto ethnographic life writing in the fields of composition, TESOL, applied linguistics, and teacher education. Coming to understand our teacher and researcher identities is a complex, fluid, contested, and multiple in nature, and it is this process that we will unfold in our class discussions as well as in our auto ethnographic life writings.

ENGL 842 - Cross-Cultural Communication

Credits: 3

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 844 - Reading Theory and the College English Teacher

Credits: 3

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 845 - Theories of Literacy

Credits: 3

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

Credits: 3

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

Credits: 3

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.

ENGL 848 - Topics in Composition and Applied Linguistics

Credits: 3

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 853 - Studies in Literature as a Profession

Credits: 3

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 854 - World Englishes in Composition and Applied Linguistics

Credits: 3

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 education contexts come together to explore and critique how English(es) is/are positioned around the globe, and how that impacts learning and teaching.

ENGL 856 - Digital Literacy for the English Professional: A Domain of One's Own

Credits: 3

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 857 - Digital Composition, Literature, and Pedagogy

Credits: 3

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" eliterature; 3. familiarizes students with changes in the field, exploring exemplary projects of digital scholarship and how they can be integrated into teaching.

ENGL 860 - Teaching College Literature

Credits: 3

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 861 - American Literature before 1870:

Credits: 3

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. May be repeated for a maximum of 12 credits under a different topic area.

ENGL 862 - American Literature since 1870:

Credits: 3

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. May be repeated for a maximum of 12 credits under a different topic area.

ENGL 863 - British Literature Before 1660:

Credits: 3

Studies major figures, movements, or topics within the period. The specific content of the course is determined by the instructor and announced in advance. May be repeated for a maximum of 12 credits under a different topic area.

ENGL 864 - British Literature Since 1660:

Credits: 3

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. May be repeated for a maximum of 12 credits under a different topic area.

ENGL 865 - Literature as Genre:

Credits: 3

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. May be repeated for a maximum of 12 credits under a different topic area.

ENGL 866 - Comparative Literature:

Credits: 3

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. May be repeated for a maximum of 12 credits under a different topic area.

ENGL 867 - Research on Writing Centers and Writing Program Administration

Credits: 3

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.

ENGL 870 - Teaching Practicum

Credits: 3

Deepens students understanding of teaching composition and teacher identity using research-based approaches. Reflect on existing teaching practices and engage in reflection-in-action. Develop research-supported teaching practices through the scholarship of teaching and learning. Practical outcomes include a teaching portfolio, draft of a teacher/research article, and a teaching philosophy.

ENGL 871 - Postmodern Literature:

Credits: 3

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. May be repeated for a maximum of 12 credits under a different topic area.

ENGL 872 - Women's Literature:

Credits: 3

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. May be repeated for a maximum of 12 credits under a different topic area.

ENGL 873 - American or British Minority Literature

Credits: 3

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. May be repeated for a maximum of 12 credits under a different topic area.

ENGL 880 - Writing for Publication

Credits: 3

Provides a thorough introduction to writing for publication. The main outcome of this course is to produce a manuscript to submit for publication in an academic journal by the end of the course. The course will prepare students to write for publication by focusing in three directions: the writer, the writing, and the field. Focusing on themselves as writers, students will develop effective writing and revision processes, set goals, and develop time management strategies. Focusing on the craft of writing, students will learn about rhetorical moves, genre features, and language choices necessary for publication. From the field, students will learn about the publication process, what audiences expect, and key aspects of writing for publication such as establishing a clear purpose, offering contributions, and building on previous work.

ENGL 881 - Special Topics

Credits: 3

Courses relating to specialized interests in literature, rhetoric, or linguistics which fulfill special needs or interests. May become permanent course offerings.

ENGL 897 - Independent Seminar

Credits: 3

Prerequisite: Permission of relevant program director(s) and instructor.

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.

ENGL 899 - Independent Study

Credits: 1-3

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 900 - Dissertation Research

Credits: 3

Provides a networked writing experience for completing a chapter of a dissertation. Writers will meet regularly with each other, have peer and faculty support, develop an IRB in conjunction with their chair, and develop knowledge of professional writing and research practices.

ENGL 954 - Candidacy Proseminar

Credits: 3

Prerequisite: For Summers-Only students, must have completed at least 6 credits. For academic year students, students must have completed at least 9 credits.

Introduces genres of professional writing, including teaching philosophies, grants, abstracts and conference papers, and reviews standards of successful academic writing in the field of English Studies. Stresses strategies for significant revision of written academic and scholarly writing.

ENGL 955 - The History and Theory of Criticism

Credits: 3

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

Credits: 3

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 - Literary Theory & American Authors

Credits: 3

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. May be repeated for a maximum of 12 credits under a different topic area.

ENGL 984 - Literary Theory & British Authors

Credits: 3

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. May be repeated for a maximum of 12 credits under a different topic area.

ENGL 985 - Comparative Literary Theory

Credits: 3

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. May be repeated for a maximum of 12 credits under a different topic area.

ENGL 995 - Dissertation

Credits: 12

NOTE: Special Topics in Language and Literature and courses with titles beginning "Topics in" (ENGL 761 -ENGL 766 and ENGL 771 -ENGL 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.

Foundations of Education

FDED 514 - Comparative Foundations of Education

Credits: 3

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

Credits: 3

FDED 590 - Improving Professional Practice in Instructional Settings

Credits: 1-3

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

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.

FDED 591 - Improving Professional Practice in Instructional Settings

Credits: 1-3

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

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.

FDED 595 - International Education Studies Program

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 1-6

Food and Nutrition

FDNT 515 - Sustainable Nutrition

Credits: 3

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 522 - Public Health Nutrition and Epidemiology

Credits: 3

Dual Listed as FDNT 422

Identifies population-based needs and approaches for prevention and alleviation of diet-related conditions. Explores methodological issues involved in the design, conduct, analysis and interpretation of studies investigating the relationship between nutritional status, diet and disease. Examines the application of nutrition research related to nutrition assessment and program and policy design and evaluation to improve the nutritional status and health of diverse population groups.

FDNT 545 - Advanced Sports Nutrition

Credits: 3

Prerequisite: Graduate student in FDNT or KHSS or department permission

Examines and evaluates evidence-based sports nutrition guidelines and current research related to nutrition and athletic performance. Explores special populations, environments and clinical conditions related to nutrition and athletic performance. Includes an emphasis on dietary supplements and ergogenic aids for sport.

FDNT 558 - Advanced Human Nutrition

Credits: 3

Prerequisite: FDNT 212, CHEM 255, and BIOL 151.

Dual-Listed Class

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.

FDNT 564 - Food and Nutrition Research Methods

Credits: 3

Prerequisite: Department permission.

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.

FDNT 571 - Integrative Nutrition in Complementary and Alternative Healthcare

Credits: 3

Dual Listed as FDNT 471

Explores the foundation of complementary, alternative, integrative and functional nutrition theories and practices. Differentiates among traditional, complementary, alternative, integrative, and functional nutrition models as related to food, supplements, herbs, and disease. Evaluates current research related to complementary, alternative, integrative and functional nutrition.

FDNT 581 - Special Topics

Credits: 3 or 4

FDNT 612 - Administration of Food Service Systems

Credits: 3

Prerequisite: Enrolled in MS in Food and Nutrition - Dietitian-Nutritionist Program, or by department permission

Applies quantity food management principles to problem-solving within a scope applicable to a variety of food service settings in healthcare and schools. Includes regulatory requirements, food science principles, procedures for inventory control, food production, and purchasing, risk assessment, budgeting, and food safety and sanitation practices.

FDNT 625 - Community Nutrition and Policy

Credits: 3

Prerequisite: Department permission.

Examines the planning, organizing, implementing, supervising, and evaluating of community nutrition programs in profit and nonprofit settings.

FDNT 630 - Connecting Theory to Research and Practice

Credits: 3

Prerequisite: Department permission.

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.

FDNT 631 - Eating Behaviors and Food Habits

Credits: 3

Prerequisite: Department permission.

Investigation and analysis of historical, political, religious, ethnic, environmental, and social influences which affect food consumption patterns.

FDNT 635 - Nutrition Intervention, Counseling, and Educational Strategies

Credits: 3

Prerequisite: Department permission.

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.

FDNT 636 - Nutrition Education and Intervention

Credits: 3

Prerequisite: Enrolled in MS in Food and Nutrition, Dietitian-Nutritionist Program, or Department permission

Addresses the selection or design, implementation, and evaluation of strategies to translate nutrition knowledge into action. Emphasizes promotion and communication of food, nutrition, and health information to diverse groups in a variety of settings.

FDNT 637 - Nutrition Counseling and Intervention

Credits: 3

Prerequisite: Enrolled in MS in Food and Nutrition, Dietitian-Nutritionist Program, or Department permission

Focuses on the application of evidence-based approaches for nutrition counseling and intervention strategies to promote behavior change.

FDNT 642 - Contemporary Issues in Food and Nutrition

Credits: 3

Current information in foods and nutrition is investigated, analyzed, and evaluated for practical implementation.

FDNT 645 - Proteins, Carbohydrates, and Fats

Credits: 3

Prerequisite: Department permission.

Nutritional considerations of protein, carbohydrate, and fat metabolism. Physiological and biochemical functions of these nutrients will be discussed.

FDNT 647 - Vitamins in Human Nutrition

Credits: 3

Prerequisite: Department permission.

Focuses on biochemical role of vitamins in human metabolism. Examines biochemical and physiologic functions and current research implications in health and disease.

FDNT 648 - Minerals and Water in Human Nutrition

Credits: 3

Prerequisite: Department permission.

Focuses on biochemical role of minerals and water in human metabolism. Examines biochemical and physiological functions and current research implications in health and disease.

FDNT 649 - Vitamins, Minerals, and Water

Credits: 3

Prerequisite: Enrolled in MS in Food and Nutrition, Dietitian-Nutritionist Program, or Department permission

Focuses on biochemical role of vitamins, minerals, and water in human metabolism. Examines biochemical and physiologic functions and current research implications in health and disease.

FDNT 651 - Professional Dietetic Practice

Credits: 3

Prerequisite: Enrolled in MS in Food and Nutrition - Dietitian-Nutritionist Program, or by department permission

Examines professional topics relevant to the field of dietetics and nutrition, to include ethics, diversity, inclusion, equity, policy-making, communication, and career preparation.

FDNT 653 - Leadership for Nutrition Professionals

Credits: 3

Prerequisite: Department permission

Provides a theoretical analysis of leadership theory, organizational management concepts, consulting strategies, and ethics as it relates to both the novice, and advanced food and nutrition professional.

FDNT 661 - Designing Effective Food and Nutrition Research Projects

Credits: 3

Prerequisite: Department permission.

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.

FDNT 662 - Applying Research Methods in Food and Nutrition

Credits: 3

Prerequisite: Department permission and FDNT 661 minimum grade of C.

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.

FDNT 681 - Special Topics

Credits: 1-3

FDNT 696 - Experiential Practice in Dietetics

Credits: 1-6

Prerequisite: Enrolled in MS in Food and Nutrition - Dietitian Nutritionist-Program

Engages in experiential learning in dietetics settings, both in the field and through simulation, to include, but not limited to community nutrition, food service settings, long-term care, and acute care.

FDNT 698 - Internship

Credits: 1-6

Supervised work experience for Food and Nutrition majors. Permission: Department chairperson.

FDNT 770 - Clinical Nutrition Assessment

Credits: 3

Prerequisite: Enrolled in MS in Food and Nutrition, Dietitian-Nutritionist Program, or Department permission

Analyze and evaluate dietary, biochemical, anthropometric, functional, socioeconomic, and clinical data to assess nutrition status of individuals and populations throughout the lifecycle. The Nutrition Care Process will be used to perform a nutrition diagnosis, plan a nutrition intervention, and evaluate and monitor the nutritional status using the appropriate professional language and documentation.

FDNT 771 - Lifecycle Nutrition

Credits: 3

Prerequisite: Department permission

Studies bodily functions at different stages of development under differing environmental conditions and at various levels of biological organization.

FDNT 772 - Clinical Nutrition Therapy I

Credits: 3

Prerequisite: "C" or better in FDNT 770, Enrolled in the MS in Food and Nutrition Dietitian-Nutritionist

Program

Applies the Nutrition Care Process to develop a nutrition diagnosis, intervention, and evaluation/monitoring to specific diseases/conditions such as CVD, diabetes, energy imbalances, upper gastrointestinal system and lower gastrointestinal system.

FDNT 773 - Clinical Nutrition Therapy II

Credits: 3

Investigates diet and nutrition in the pathophysiology, prevention and treatment of select diseases and conditions. Addresses measures of nutrition status, intervention, monitoring and evaluation using the nutrition standardized language and evidence-based practice.

FDNT 795 - Thesis

Credits: 1-4

FDNT 799 - Independent Study in Food and Nutrition

Credits: 1-3

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.

Finance

FIN 500 - Foundations of Finance

Credits: 1.5

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

Credits: 3

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.

FIN 510 - Financial Institutions and Markets

Credits: 3

Prerequisite: FIN 630 or by permission of the Eberly College of Business and Information Technology

graduate coordinator.

Dual-Listed Class

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.

FIN 520 - Investment Analysis

Credits: 3

Prerequisite: ACCT 301, FIN 310, FIN 324, or permission of Eberly College of Business and Information Technology graduate coordinator.

Dual-Listed Class

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.

FIN 524 - International Financial Management

Credits: 3

Prerequisite: FIN 310 or equivalent.

Dual-Listed Class

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.

FIN 525 - Financial Derivatives

Credits: 3

Prerequisite: FIN 324 for FIN 425 and FIN 630 or equivalent/permission.

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.

FIN 581 - Special Topics in Finance

Credits: 3

Prerequisite: Permission of instructor and Eberly College of Business and Information Technology graduate coordinator.

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.

FIN 630 - Corporate Finance and Valuation

Credits: 3

Apply financial models to assess the fundamental value of corporations and various financial securities by incorporating concepts from interest rates and bond valuation, cost of capital, capital structure decisions, cash flow estimation and risk analysis of capital budgeting projects and stock valuation.

FIN 632 - Seminar in Finance

Credits: 3

Prerequisite: FIN 630

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.

FIN 635 - Principles of Investments in Securities

Credits: 3

Prerequisite: FIN 630

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.

FIN 681 - Special Topics in Finance

Credits: 3

Prerequisite: Permission of the instructor and the Eberly College of Business and Information Technology graduate coordinator.

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.

FIN 698 - MBA Internship

Credits: 1.5 or 3

Prerequisite: Completed 15 graduate credits. Approval by department chair and graduate coordinator.

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.

FIN 699 - Independent Study in Finance

Credits: 1-3

Prerequisite: Consent of instructor, departmental chairperson, and Eberly College of Business and Information Technology dean.

Individual research and analysis of contemporary problems and issues in a concentrated area of study under the guidance of a senior faculty member.

FIN 795 - Thesis

Credits: 4-6

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

Credits: 3

Prerequisite: Student in the PhD business program

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.

FIN 895 - Doctoral Seminar in Business

Credits: 3

Prerequisite: Student in the PhD business program.

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.

Cross-Listed: MGMT 895

FIN 995 - Doctoral Dissertation in Business

Credits: 1-12

Prerequisite: Completion of PhD in managerial coursework and comprehensive exams

A culminating scholarly activity requiring independent original research, literature review, data collection, analysis, and written and oral dissemination of findings. Dissertation defense is required.

Cross-Listed: MGMT 995

Graduate College of Education and Communications

GCOE 541 - Creative Problem-Solving and Design Thinking

Credits: 3

Examines the history, current literature, neuroscience, and various approaches of creativity and creative problem-solving before covering the principles and stages of design thinking. The course also includes an application component of both creative problem-solving and design thinking for professionals in their respective workplaces.

GCOE 781 - Mental Health Diagnosis and Interventions for the School Professional

Credits: 3

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.

Geography

GEOG 511 - History of Geography

Credits: 3

Dual-Listed Class

History of the discipline, great ideas, leading professionals, and unresolved issues are studied.

GEOG 514 - Map and Photograph Interpretation

Credits: 3

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

Credits: 3

Dual-Listed Class

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

Credits: 3

Dual-Listed Class

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

Credits: 3

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.

GEOG 519 - Geographic Information Systems (GIS) for Environmental Applications

Credits: 3

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.

GEOG 521 - Enterprise GIS Management

Credits: 3

Prerequisite: Consent of instructor.

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.

GEOG 525 - Global Positioning Systems (GPS) Concepts and Techniques

Credits: 3

Dual-Listed Class

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 - Environmental Land Use Planning

Credits: 3

Prerequisite: (RGPL 550 recommended)

Dual-listed as RPGL 426

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.

GEOG 531 - Population Geography

Credits: 3

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

Credits: 3

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

Credits: 3

Transportation systems and their use: accessibility, circulation, time and distance concepts, and trade patterns. Empirical and theoretical approaches are examined.

GEOG 534 - Political Geography

Credits: 3

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

Credits: 3

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.

GEOG 536 - Social Geography

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

Dual-Listed Class

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

Credits: 3

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.

GEOG 550 - Introduction to Community Planning

Credits: 3

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

Credits: 3

Research, analytical design, and plan-making techniques in urban and regional planning. Examines basic items necessary to prepare urban and regional comprehensive plans.

GEOG 553 - Planning Design I

Credits: 3

Introduces the basics of design problem solving, visual communications and site planning in the context of human settlement and urban geography. Emphasizes graphic communication, program development and the translation of design programs into physical form. Introduces a broad range of contemporary community planning and development issues best resolved through creative design. Applies planning and design skills in the context of history, culture, site, environment, diversity, social equity, legal conventions, regulatory policies, accessibility, technology, materiality and sustainability.

GEOG 554 - Planning Design II

Credits: 3

Prerequisite: GEOG 550 GEOG 553

Presents concepts of city, subdivision, and transportation design in relation to topography, natural resources, and other physical elements. This course focuses specifically on the development of site planning; site analysis and site design as well as the translation of design program elements into physical form.

GEOG 558 - Land Use Law

Credits: 3

Prerequisite: GEOG 550 or GEOG 564.

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.

GEOG 562 - Planning Policy, Implementation, and Administration

Credits: 3

Prerequisite: GEOG 558

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.

GEOG 564 - Land Use Policy

Credits: 3

Dual-Listed Class

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

Credits: 3

Prerequisite: GEOG 550

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.

GEOG 581 - Special Topics

Credits: 3

Topical courses offered on an experimental basis. Check department schedule for these offerings.

GEOG 584 - Field Studies in Geography and Social Studies

Credits: 3

Prerequisite: Permission of instructor.

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.

GEOG 588 - Geospatial Intelligence Capstone

Credits: 3

Prerequisite: GEOG 515 GEOG 516 and PLSC 565

Involves synthesizing concepts, skills and techniques learned in prerequisite courses in the Geospatial Intelligence certificate curriculum to develop an applied geointelligence project. Major tasks include spatial data acquisition, processing, analysis and reporting to geospatial intelligence tradecraft standards, as well as a culminating presentation of the project.

GEOG 610 - Research in Geography and Regional Planning

Credits: 3

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

Credits: 3

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

Credits: 3

Prerequisite: GEOG 610

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.

GEOG 617 - Field Techniques in Geography and Planning

Credits: 3

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

Credits: 3

Prerequisite: GEOG 516

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.

GEOG 623 - Regional Development

Credits: 3

Theory and policy implications of the spatial aspects of development in various regions of underdevelopment.

GEOG 624 - Technical Issues in GIS

Credits: 3

Prerequisite: GEOG 516 or GEOG 519

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.

GEOG 625 - Environmental Planning

Credits: 3

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

Credits: 3

Literature and methods of cultural geography. Topics include population, settlements, human ecology, culture areas, and related features.

GEOG 633 - Settlement Geography

Credits: 3

Settlement patterns and processes; origins, diffusion, classification, pioneer, settlement planning, and agricultural colonization.

GEOG 650 - Regional Geography

Credits: 3

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

Credits: 3

Prerequisite: GEOG 415 or GEOG 515

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).

GEOG 665 - Plan Implementation

Credits: 3

Prerequisite: GEOG 550

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.

GEOG 670 - Professional Problems in Geographic Education

Credits: 3

Classroom problems and discussion centered about new viewpoints in geography. Individual reports, group discussion, and research included.

GEOG 675 - Spatial Analysis Techniques

Credits: 3

Prerequisite: GEOG 516.

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.

GEOG 680 - Seminar

Credits: 3-6

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

Credits: 3

Topical courses offered on an experimental basis. Check department schedule for these offerings.

GEOG 698 - Internship

Credits: 3-12

Prerequisite: Twelve academic credits and a 3.00 cumulative GPA.

Professional learning experience with emphasis on practical applications of academic background.

GEOG 699 - Independent Study

Credits: 1-6

Independent research and study under faculty direction. Interested students should apply to director of graduate studies.

GEOG 795 - Thesis

Credits: 1-6

Prerequisite: Permission of graduate coordinator and department chairperson.

Involves a supervised research project approved by a committee composed of the student's thesis advisor and two additional faculty members.

Geoscience

GEOS 699 - Independent Study

Credits: 1-3

Independent research under faculty direction.

Graduate General Service

GSR 516 - Statistical Methods I

Credits: 3

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

Credits: 3

Prerequisite: GSR 516 or equivalent.

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.

GSR 581 - Special Topics I

Credits: 3

Prerequisite: May not be scheduled without prior written approval of the Dean of the School of Graduate Studies and Research.

Group study of course material not offered in other graduate courses.

GSR 615 - Elements of Research

Credits: 3

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 681 - Special Topics I

Credits: 3

Prerequisite: May not be scheduled without prior written approval of the Dean of the School of Graduate Studies and Research.

Group study of course material not offered in other graduate courses.

GSR 699 - Independent Study I

Credits: 3

Prerequisite: May not be scheduled without prior written approval of the Dean of the School of Graduate Studies and Research.

Individualized, in-depth study of an approved topic directed by a participating faculty member and approved administratively.

GSR 781 - Special Topics I

Credits: 3

Prerequisite: May not be scheduled without prior written approval of the Dean of the School of Graduate Studies and Research.

Group study of course material not offered in other graduate courses.

GSR 795 - Thesis

Credits: 3-4

GSR 881 - Special Topics I

Credits: 3

Prerequisite: May not be scheduled without prior written approval of the Dean of the School of Graduate Studies and Research.

Group study of course material not offered in other graduate courses.

GSR 951 - Extended Dissertation

Credits: 3

GSR 981 - Special Topics I

Credits: 3

Prerequisite: May not be scheduled without prior written approval of the Dean of the School of Graduate Studies and Research.

Group study of course material not offered in other graduate courses.

History

HIST 501 - History of Ancient Greece

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

Greatness of France under Louis XIV; Sweden; Thirty Years' War; emergence of modern society; French Revolution.

HIST 507 - History of Europe, 1815-1914

Credits: 3

Study of Europe in nineteenth century, with emphasis on the emergence of major thought patterns, Romanticism, Socialism, and Positivism.

HIST 508 - Twentieth-Century Europe

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

Survey of United States history from 1783 to 1850, with special attention to constitutional, political, and social trends.

HIST 543 - Civil War and Reconstruction

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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+

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

Each semester, courses are offered in interest areas which are not part of the regular course offerings.

HIST 591 - Film as History

Credits: 3

Deals with the cinema as social, cultural, and intellectual history from its origins to the present day.

HIST 600 - Readings in History

Credits: 3-6

Directed readings of historical materials, focused on a general topic.

HIST 601 - History Seminar

Credits: 3-6

Area research, culminating in a formal paper.

HIST 605 - Introduction to Public History

Credits: 3

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

Credits: 3

Prerequisite: HIST 605

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.

HIST 614 - Research Methods

Credits: 3

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

Credits: 3

HIST 698 - History Internship

Credits: 1-6

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

Credits: 3

Student selects topic for individual study with an instructor.

HIST 770 - Archival Principles and Practice

Credits: 3

Prerequisite: HIST 605

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.

HIST 771 - Museum Studies

Credits: 3

Prerequisite: HIST 605 or instructor's permission.

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.

HIST 772 - Oral History Theory and Method

Credits: 3

Prerequisite: HIST 605 or instructor's permission.

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.

HIST 790 - Seminar in Public History

Credits: 3

Prerequisite: HIST 605; two courses from the following: HIST 606, HIST 770, HIST 771, HIST 772; and, 6 credits of internship (can be concurrent with HIST 790).

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.

Hospitality Management

HOSP 511 - Contemporary Issues in Hospitality Management

Credits: 3

Discussion of contemporary issues within the hospitality industry. Students write a series of opinion/reaction papers to present discussion topics.

Cross-Listed: ELR 511

HOSP 550 - Training, Development, and Supervision in Hospitality Management

Credits: 3

An applied course in which students learn effective practices and become familiar with current issues related to training and development within the hospitality industry.

Health Services Administration

HSAD 555 - Health Care Informatics

Credits: 3

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.

Cross-Listed: NURS 555

HSAD 605 - Epidemiology in Health Services Administration

Credits: 3

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

Credits: 3

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.

HSAD 610 - Employee Rights under Law

Credits: 3

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.

Cross-Listed: ELR 610

HSAD 614 - Health Policy

Credits: 3

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.

Cross-Listed: NURS 614

HSAD 616 - Health Law

Credits: 3

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.

Cross-Listed: ELR 616

HSAD 619 - Research Methods in Human Resources and Employment and Labor Relations

Credits: 3

Provide graduate students with an introductory course in research methods generally used in behavioral sciences. The course introduces students to research theory, research design, quantitative and qualitative methodologies and technology to analyze and interpret data that supports effective organizational decision-making. Topics include: Human Resource Information Systems (HRIS); data analysis techniques such as HR bench-marking, trend and ratio analysis and balanced scorecards; data mining; and risk management.

Cross-Listed: ELR 619

HSAD 631 - Human Resources Management in the Public Sector

Credits: 3

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.

Cross-Listed: ELR 631

HSAD 730 - Financial Management in Health Care

Credits: 3

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.

Cross-Listed: NURS 730

HSAD 751 - Conflict Resolution

Credits: 3

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.

Cross-Listed: ELR 751

HSAD 761 - Health Services Capstone

Credits: 3

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

Credits: 3-6

Information Management

IFMG 531 - Python Programming

Credits: 3

Builds expertise in a high-level programming language known for its readability and support for multiple programming styles, and, due to its many libraries, a large range of applications. Introduces concepts to apply programming syntax and problem solving to business cases. Covers topics that includes data types, programming constructs, and different libraries.

IFMG 555 - Business Data Mining

Credits: 3

Introduces the strategies, technologies, and techniques associated with this growing MIS specialty area. Consists of three main parts: (1) the basic methodology for designing, using, and managing a data warehouse, (2) integrating different sources of data using non-relational technologies, and (3) using different data mining techniques to derive information from data for strategic and long-term business decision-making.

IFMG 556 - Business, Intelligence, Informatics, and Big Data Analysis

Credits: 3

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

Credits: 3

Prerequisite: Permission of the instructor.

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.

IFMG 568 - Information Technology Security

Credits: 3

Introduces the principles and practices of security in the information technology (IT) field of study. Covers topics widely discussed in the IT Security field to include security governance, strategic planning, policies and procedures, infrastructure, security management models, contingency plans and other related topics. Elaborates on the legal and ethical issues facing IT security in practice. Articulate plans to counter security threats from recent technological advances including Internet of Things (IoT), Bring your Own Devices (BYOD) wearable devices and other related advances in technology.

IFMG 575 - Project Management and Implementation

Credits: 3

Introduces the demands made on the project manager and the nature of the manager's interaction with the rest of the parent organization in development of a business information system. Studies the difficult problems associated with conducting a project using people and organizations that represent

different cultures and politics and that may be separated by considerable distances. Also covers how to implement and carry out the development of the project using several information systems development methodologies.

IFMG 580 - Distributed Business Information Systems

Credits: 3

Dual-Listed Class

A study of the techniques involved in planning, designing, and implementing distributed processing systems. Distributed marketing, financial, and corporate accounting systems are included.

IFMG 581 - Special Topics in Information Systems

Credits: 1-3

Prerequisite: Permission of instructor and Eberly College of Business and Information Technology graduate coordinator.

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.

IFMG 639 - Information Systems Practicum

Credits: 3

Prerequisite: Students who are enrolled in the IUP MBA program and permission of the instructor. 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.

IFMG 640 - Information Systems Management

Credits: 3

Introduces current and emerging information technologies, and associated frameworks and paradigms, and their application to the current and future organizational setting, to gain competitive advantage, and/or to sustain competitive advantage. Details current Information Systems and technologies that support the operational, administrative, and strategic needs of the organization, its business units, individual employees. Discusses evolution of these systems and the incoming new IS-based paradigms that apply to these. Discusses predominant individual, social, and political issues related to the use of omni-use Information Systems on a global scale.

IFMG 644 - IT Policy and Strategy

Credits: 3

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.

Cross-Listed: BTST 644

IFMG 645 - IS Concepts and Architecture

Credits: 3

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

Credits: 3

The traditional systems development life cycle is covered in detail and integrated with other contemporary methodologies. Structured techniques are emphasized as a forerunner to objectoriented 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

Credits: 3

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

Credits: 3

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

Credits: 3

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.

IFMG 663 - Project Management for Information Technology Professionals

Credits: 3

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.

Cross-Listed: BTST 663

IFMG 681 - Special Topics in Management Information Systems

Credits: 3

Prerequisite: Permission of the instructor and the Eberly College of Business and Information Technology graduate coordinator.

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.

IFMG 682 - Integrating the Enterprise, IS Function, and Technologies

Credits: 3

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.

Cross-Listed: BTST 682

IFMG 698 - MBA Internship

Credits: 1.5 or 3

Prerequisite: Completed 15 graduate credits. Approval by department chair and graduate coordinator.

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.

IFMG 699 - Independent Study in Management Information Systems

Credits: 1-3

Prerequisite: Consent of instructor, departmental chairperson, and Eberly College of Business and Information Technology dean.

Individual research and analysis of contemporary problems and issues in a concentrated area of study under the guidance of a senior faculty member.

IFMG 830 - MIS and Decision Making Theory

Credits: 3

Prerequisite: Student in the PhD business program

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.

Information Systems and Decision Sciences

ISDS 811 - Theory Building and Research Methods

Credits: 3

Prerequisite: Student in the PhD business program.

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.

Cross-Listed: MKTG 811

ISDS 812 - Quantitative Research Methods I

Credits: 3

Prerequisite: Student in the PhD business program.

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.

Cross-Listed: ECON 812

ISDS 813 - Quantitative Research Methods II

Credits: 3

Prerequisite: ISDS 812/ ECON 812 - Quantitative Research Methods I

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.

Cross-Listed: ECON 813

ISDS 895 - Doctoral Seminar in Information Systems and Decision Making

Credits: 6

Prerequisite: Students enrolled in PhD program or permission from department chairperson. Employs applied research methods in a specific area of business— information systems.

ISDS 995 - Doctoral Dissertation in Information Systems and Decision Making

Credits: 1-2

Prerequisite: Students in the PhD program or permission of department chairperson

Provides students an opportunity to conduct independent original research and disseminate their findings in oral and written formats. Dissertation defense is required. Culminating scholarly activity for the PhD in Business program.

Kinesiology, Health, and Sport Science

KHSS 501 - Foundations of Athletic Training

Credits: 3

Introduces the domains and competencies of athletic training. Addresses the historical development and current status of the profession. Provides the foundational concepts of evidence-based practice.

KHSS 510 - Exercise Prescription

Credits: 3

Prerequisite: KHSS 343.

Dual-Listed Class

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.

KHSS 512 - Physical Activity and Stress Management

Credits: 3

Dual-Listed Class

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 Across the Lifespan

Credits: 3

Dual-Listed Class

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

Credits: 2

Prerequisite: Graduate Standing.

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.

KHSS 515 - Wellness Coaching for Lifestyle Behavior Management

Credits: 3

Prerequisite: Graduate standing.

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.

KHSS 516 - Functional Training for Strength and Conditioning

Credits: 3

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

Credits: 3

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

Credits: 3

Dual-Listed Class

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 525 - Risk Management and Acute Care in Athletic Training

Credits: 3

Prerequisite: KHSS 501

Study and practice of procedures and techniques aimed at limiting risk of injury to individuals engaged in physical activity or sport, as well as the practice of emergency/acute care skills for the athletic environment.

KHSS 526 - Health Science Instruction

Credits: 3

Prerequisite: KHSS 316, KHSS 318

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.

KHSS 536 - Corrective Exercise for the Health and Fitness Practitioner

Credits: 3

Dual Listed as KHSS 436

Enhances understanding of the foundation of movement patterns as they apply to efficient human

motion. Addresses the analysis of human motion in order to teach, modify, and enhance human motion in clinical and performance settings.

KHSS 537 - Coaching Disability Sport

Credits: 3

Dual-Listed Class

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 545 - Pathology and Assessment in Athletic Training I

Credits: 4

Surveys common orthopedic injuries to the lower extremity associated with participation in physical activity and sport. Course entails a review of joint structure and function, and a comprehensive review of the etiology, pathophysiology, and classification of common musculoskeletal injuries as well as a detailed study of orthopedic valuation techniques of the lower extremity.

KHSS 550 - Curriculum and Programming in Sexuality Education

Credits: 3

Dual-Listed Class

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 565 - Pathology and Assessment in Athletic Training II

Credits: 4

Surveys common orthopedic injuries to the upper extremity associated with participation in physical activity and sport. Course entails a review of joint structure and function, and a comprehensive review of the etiology, pathophysiology, and classification of common musculoskeletal injuries as well as a detailed study of orthopedic evaluation techniques of the upper extremity.

KHSS 575 - Pathology and Assessment in Athletic Training III

Credits: 4

Prerequisite: KHSS 565

Surveys common orthopedic injuries to the axial skeleton associated with participation in physical activity and sport. Course entails a review of joint structure and function, and a comprehensive review of the etiology, pathophysiology, and classification of common musculoskeletal injuries as well as a detailed study of orthopedic evaluation techniques of the axial skeleton.

KHSS 576 - Athletic Training Program Clinical Practicum I

Credits: 3

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 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. 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 577 - Athletic Training Clinical Practicum II

Credits: 3

Assesses proficiency of psychomotor and clinical reasoning skills within the domain of athletic injury assessment 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 learned under the direction of a qualified preceptor within the IUP Athletic Department or an affiliated clinical site. Specific skills emphasized include but are not limited to those relating to anatomical landmarks' identification, orthopedic and neurological evaluation.

KHSS 580 - Organization and Administration in Athletic Training

Credits: 3

Prerequisite: Master of Science in Athletic Training Major or Instructor Permission

Provides comprehensive instruction in the areas of health care administration. Topics to include, but not limited to, program development, human resource management, information management, third party reimbursement, patient privacy, ethics, state and national statutes and legal liability as it relates to the athletic training profession.

KHSS 581 - Special Topics

Credits: 3

KHSS 585 - Assessment and Management of General Medical Conditions in Athletic Training

Credits: 4

Prerequisite: MS in Athletic Training Major, or Instructor Permission.

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.

KHSS 601 - Sport and Society

Credits: 3

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

Credits: 3

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

Credits: 3

An examination of the physiological factors that influence performance in sport with emphasis on the analysis of various training techniques.

KHSS 610 - Coaching Management

Credits: 3

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.

KHSS 615 - Curriculum Design and Assessment in Health and Physical Education

Credits: 3

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

Credits: 3

Prerequisite: Permission.

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.

KHSS 625 - Management Concepts in Fitness

Credits: 3

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.

KHSS 631 - Motor Learning

Credits: 3

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

Credits: 3

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

Credits: 3

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 peerreviewed research specific to the discipline of health, physical activity, and sport.

KHSS 635 - Sports Leadership

Credits: 3

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

Credits: 3

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

Credits: 3

Prerequisite: KHSS 634

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.

KHSS 641 - Administration of Aquatic Programs

Credits: 3

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

Credits: 3

Elements and principles of planning, design, and operation of swimming pools, waterfront facilities, and related equipment necessary for the aquatic administrator.

KHSS 643 - Advance Exercise Physiology

Credits: 3

Prerequisite: Undergraduate class in exercise physiology or anatomy and human physiology or instructor permission.

Examines advanced concepts within the discipline of exercise physiology. Includes an in-depth study of physiological factors that influence exercise and sport performance. Interpretation of current literature within the discipline and integration of physiological concepts into exercise program design will be emphasized.

KHSS 645 - Advanced Teaching Techniques in Physical Education

Credits: 3

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 646 - Rehabilitation Methods and Therapeutic Exercises for Orthopedic Injuries

Credits: 4

Prerequisite: KHSS 565 or by instructor permission

Explores the theory and application of exercise and exercise equipment, and other therapeutic interventions/techniques for the rehabilitation of orthopedic injuries. Emphasis is given to the understanding of the relationship between healing and appropriate therapeutic interventions, and the development of a broad theoretical knowledge base for non-surgical and post-surgical rehabilitation,

and the return to pre-injury activity levels. Laboratory component will address the development of therapeutic skills necessary for the implementation of comprehensive orthopedic rehabilitation programs.

KHSS 648 - Therapeutic Modalities

Credits: 4

Prerequisite: Master of Science in Athletic Training Major or Instructor Permission

Explores therapeutic modalities used in the care of musculoskeletal and neurological injuries with regard to the physics, physiological effects, indications, contraindications and progression of each form of physical agent. A laboratory component will also be included providing an opportunity to practice those psychomotor skills taught.

KHSS 652 - Globalization of Sports Business

Credits: 3

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.

KHSS 655 - Health and Fitness for Elementary School Children

Credits: 3

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

Credits: 3

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 660 - Governance in Intercollegiate Athletics

Credits: 3

Designed to be a study of issues evident in the governance of intercollegiate sport. The course will focus on evaluation of policies established, ramifications for violation of rules and the procedures utilized by the NCAA to govern intercollegiate athletics. Features discussion of the various topics related to college athletics, with an emphasis upon concepts and ideals that underlie the major legal and social issues affecting contemporary intercollegiate athletics

KHSS 670 - Advanced Seminar in Adapted Physical Education

Credits: 3

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

Credits: 3

Prerequisite: BIOL 301

Dual-Listed Class

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.

KHSS 673 - Strength and Conditioning for Individual and Team Athletes

Credits: 3

Examines advanced methods of strength & conditioning for a variety of team & individual sports. Emphasis will be placed on proper form and utilization of various workout designs to complement larger training goals for individual athletes and team sports. Students will gain experience in the theoretical and practical aspects of designing individual and group workout sessions.

KHSS 674 - Functional & Tactical Strength & Conditioning: Theory & Practice

Credits: 3

Applies scientific knowledge of strength and conditioning to maximize training of military, fire and rescue, law enforcement, protective services and other emergency personnel to improve performance, promote wellness and decrease risk of injury.

KHSS 675 - Fitness Technology for Health and Physical Educators

Credits: 3

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

Credits: 6

Prerequisite: KHSS 575, KHSS 577 , KHSS 585, KHSS 648

Assesses proficient psychomotor and clinical reasoning skills within the domains of general medical evaluation, manual muscle testing, and modality application, in coordination with a onesemester 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.

KHSS 677 - Athletic Training Clinical Practicum IV

Credits: 3

Prerequisite: KHSS 646, KHSS 676

Assesses proficiency of psychomotor and clinical reasoning skills in the domain of injury rehabilitation in coordination with a one-semester clinical field experience. Field experience will allow each student an opportunity to practice and apply skills previously learned, under the direction of a qualified preceptor within the IUP Department of Athletics and/or an affiliated clinical site. Specific skills emphasized include but are not limited to: evaluation of body alignment and motion, manual therapy, exercise instruction, therapeutic intervention techniques/methods, and strength and functional testing.

KHSS 680 - Seminar

Credits: 3

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

Credits: 3

KHSS 685 - Professional Issues in Athletic Training

Credits: 3

Prerequisite: KHSS 677

Explores topics related to professional development and responsibility in athletic training. An application of current research findings in athletic training will be examined and preparation for the Board of Certification (BOC) examination will be addressed.

KHSS 698 - Internship

Credits: 3-6

Prerequisite: Faculty approval.

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.

KHSS 699 - Independent Study

Credits: 1-3

Prerequisite: Approval of faculty member, department chairperson, college dean, and associate provost. 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.

KHSS 795 - Thesis

Credits: 3-6

Leadership Studies

LDRS 781 - Special Topics

Credits: 3

LDRS 800 - Proseminar

Credits: 1

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

Credits: 3

Focuses on several leadership theories related to administering social agencies, schools, business, and industry.

LDRS 802 - Leadership Applications

Credits: 3

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 803 - Scholarly Writing in Leadership Studies

Credits: 3

Focuses on scholarly writing and communication for students of Leadership Studies. Students will review the mechanics of dissertation proposal writing, writing social scientific papers, and preparing reports

and presentations. Students will learn how to synthesize research literature, develop conceptual frameworks, present data, and persuasively argue based on evidence. Students will learn and practice skills for writing, editing, and revision. Coverage includes writing for dissertation, applied research projects, and practical applications within the discipline.

LDRS 804 - Social Policy

Credits: 3

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.

LDRS 810 - Nonprofit Management

Credits: 3

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

Credits: 3

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 815 - Survey of Social and Organizational Theories I

Credits: 3

Examines the principles and use of classical social and organizational theories for understanding social relations and phenomena, the role of theory in the social science of leadership studies, and the historical roots and the development of both social theories and organizational theories. The emphasis is on understanding the contributions and limitations of theory, how they inform current understanding of societal relations, and critically analyzing these theoretical perspectives.

LDRS 816 - Survey of Social and Organization Theories II

Credits: 3

Prerequisite: LDRS 815; or instructor permission

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.

LDRS 830 - Diversity, Equity, and Inclusion in Organizations

Credits: 3

Examines the role of diversity and equity in organizations within the US context. It will provide students with an introduction to the interlocking systems of oppression and social inequalities (racism, sexism, heterosexism, ableism, classism, etc.) that shape social interactions, organizational culture, and social institutions, historically and today. The course will examine the effects of leadership practices on organizational cultures around inclusion and equity, and will draw on the latest theoretical and empirical research as well as case studies and personal accounts to evaluate how workplace inclusion strategies can contribute to positive outcomes for employers, employees, and their families and other stakeholders.

LDRS 861 - Program Evaluation

Credits: 3

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 862 - Analysis of Social Data

Credits: 3

Introduces students to statistics and their use in analyzing and understanding social phenomena and social data germane to administration and leadership studies in the non-profit and public sectors. 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 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.

LDRS 863 - Quantitative Research Methods I

Credits: 3

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.

LDRS 864 - Quantitative Research Methods II

Credits: 3

Prerequisite: LDRS 863

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.

LDRS 865 - Qualitative Research Methods

Credits: 3

Prerequisite: LDRS 862; or instructor permission

Provide students with a solid understanding of the key principles associated with qualitative research germane to administration and leadership studies in the non-profit and public sectors, as well as a framework for understanding how this approach compares with quantitative research. 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.

LDRS 866 - Advanced Qualitative and Mixed Methods

Credits: 3

Examines critical elements of qualitative research methodology in five substantive areas. First, it explores in-depth issues related to the ethical practice of qualitative research, and the institutional and regulatory processes in place for the protection of human subjects. Then, the course looks at elements of research design and implementation in depth. This begins with the historical emergence and epistemological grounding, the design and implementation of mixed methods research, and the case study and grounded theory research designs. Students will then further develop their skills in data collection via focus groups and multimedia sources, and in qualitative data analysis with focus on use of CAQDAS. Lastly, students will examine the writing process for preparing a qualitative dissertation, including organization, structure, and voice.

LDRS 881 - Special Topics

Credits: 3

LDRS 898 - Field Experience in Administration and Leadership Studies

Credits: 3

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

Credits: 3

Prerequisite: Limited to ALS PhD students who have completed core and research comprehensive examinations.

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.

LDRS 995 - Dissertation

Credits: 9

Library

LIBR 600 - Bibliography of Music

Credits: 3

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.

Literacy

LTCY 590 - Improving Professional Practice in Instructional Settings

Credits: 1-3

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

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.

LTCY 591 - Improving Professional Practice in Instructional Settings

Credits: 1-3

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

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.

LTCY 600 - Foundations of Literacy Instruction

Credits: 3

Introduces elements of effective literacy instruction that 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 reading development.

LTCY 607 - Diverse Texts for Literacy Instruction

Credits: 3

Acquaints students with various print and digital texts to use for evidence-based literacy instruction.

Candidates will analyze texts, as well as develop instructional materials using informational and narrative texts. Diversity in literature and diversity in student needs will be emphasized. Candidates will utilize technology to access information related to text sources.

LTCY 635 - Differentiated Literacy Instruction to Meet the Needs of All Learners

Credits: 3

Prerequisite: LTCY 600

Examines curricular materials, teaching approaches, and strategies used in classrooms to develop student literacy. The primary focus of the course is on differentiated instruction, designed to meet the needs of all learners, including those who speak English as a second language, experience difficulty learning to read and/or write, students who are gifted, and students from diverse backgrounds/cultures.

LTCY 644 - Writing Development and Instruction

Credits: 3

Prerequisite: Prerequisite or Co-requisite: LTCY 600

Introduces theoretical, conceptual, historical, and evidence-based aspects of writing development and instruction. Emphasis is placed on instruction in writing processes (e.g. composition, revision) and foundational skills (e.g., spelling, sentence construction) and the relationship of writing to other components of literacy.

LTCY 648 - Creativity and the Elementary School Child

Credits: 3

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

Credits: 1 to 3

LTCY 697 - Seminar in Special Problems in Reading

Credits: 3

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

Credits: 3

Prerequisite: LTCY 600 or permission of coordinator.

Examines quantitative and qualitative research in reading, writing, and other literacy and language issues. Designed to ensure that candidates will be able to read, interpret, evaluate, statistical and ethnographic research in literacy. In addition, candidates will be able to apply research to instructional practices, and support teachers in the application of research in practice.

LTCY 699 - Independent Study in Reading Education

Credits: 1-3

Prerequisite: Permission of the coordinator.

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.

LTCY 701 - Assessment and Acceleration

Credits: 3

Prerequisite: LTCY 600

Examines the role of formal and informal assessments in screening, diagnosing, and measuring student achievement. Emphasis is placed on the use of assessments to inform instruction and select appropriate interventions for diverse learners.

LTCY 702 - Literacy Instruction Across Disciplines

Credits: 3

Prerequisite: LTCY 600 or permission of coordinator.

Emphasizes evidence-based approaches to integrating literacy strategies and varied materials and technologies across disciplines at the elementary and secondary levels. An inquiry approach to teaching is incorporated throughout class sessions and a school-based field experience.

LTCY 705 - Literacy Leadership and Collaboration

Credits: 3

Prerequisite: Prerequisites or Co-requisites: LTCY 607, LTCY 644, LTCY 698, LTCY 701, and LTCY 702.

Acquaints students with issues in professional learning and leadership. Requires students to apply knowledge of adult learning to collaborate with colleagues, families, and stakeholders in literacy instruction. Describes the various roles of literacy professionals. Develops leadership skills and the ability to advocate on behalf of students, families, and teachers. Analysis of curriculum and development of literacy professional learning opportunities are emphasized.

LTCY 770 - Practicum and Seminar for Reading Specialists I

Credits: 3

Prerequisite: LTCY 600 LTCY 607 LTCY 635 LTCY 644 LTCY 698 and LTCY 701

Supervised experience working with PK-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 diverse students in inclusive classrooms is stressed. Candidates maintain records of student's progress. Candidates 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 experience as a Reading/Literacy Specialist.

LTCY 771 - Practicum and Seminar for Reading Specialists II

Credits: 3

Prerequisite: LTCY 702 and LTCY 705

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.

LTCY 795 - Thesis

Credits: 1-6

Prerequisite: Permission of the coordinator.

Management

MGMT 500 - Compensation Management

Credits: 3

Prerequisite: MGMT 300 or equivalent.

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.

MGMT 501 - Management Development and Training

Credits: 3

Prerequisite: MGMT 300, 310, or equivalent of both.

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.

MGMT 503 - Small Business Planning

Credits: 3

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

Credits: 3

Prerequisite: MGMT 300 and MATH 214 or equivalent of both.

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.

MGMT 534 - Industrial Quality: Statistical Tools and Management

Credits: 3

Emphasizes statistical, technological and managerial tools, techniques and concepts that pervade the entire supply chain in today's industrial environment as well as the factory of the future (FoF). FoF will be powered by "Industry 4.0," which will rely on Industrial Internet of Things (IIoT), smart sensors, robotics, and artificial intelligence among other advances.

MGMT 537 - Supply Chain Modeling and Analysis

Credits: 3

Prerequisite: MGMT 330 or equivalent.

Builds on the core concepts of operations management and industrial engineering to design, evaluate, and deploy supply chains with a focus on quantitative tools and technological issues. Deals with supply chain functioning based on deterministic and stochastic modeling, mathematical optimization, computer simulation, and heuristics. Focuses on technological trends in optimizing supply chains. Introduces supply chain-related computer applications such as ERP and CRM.

MGMT 540 - Introduction to Energy Management

Credits: 3

Prerequisite: Acceptance into the MBA program.

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.

MGMT 551 - International Management

Credits: 3

Prerequisite: MGMT 310 or equivalent.

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.

MGMT 554 - International Competitiveness

Credits: 3

Prerequisite: MGMT 350 or equivalent.

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.

MGMT 561 - Business Leadership Theory

Credits: 3

Dual-Listed Class

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

Credits: 3

Prerequisite: MGMT 561

Dual-Listed Class

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.

MGMT 571 - Organizational Launch and New Venture Development

Credits: 3

Prerequisite: MGMT 310.

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.

MGMT 572 - Organizational Entrepreneurship

Credits: 3

Prerequisite: MGMT 310 or equivalent.

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.

MGMT 581 - Special Topics in Management

Credits: 1-3

Prerequisite: Permission of instructor and Eberly College of Business and Information Technology graduate coordinator.

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.

MGMT 613 - Advances in Organizational Behavior and Human Resource Management

Credits: 3

Focus on the advances in the science of Organizational Behavior, the practice of Human Resource Management, and the advanced technologies enabling new management techniques and how these come together to create long term value for the organization. First students will develop an understanding of the latest theories of organizational behavior and the evolving role of Human Resource Management. With this foundation, students will learn how organizations have developed the capacity to collect and analyze employee data and how managers are able to apply tools developed by industrial psychologists, computer scientists, and statisticians to optimize performance by individual employees, teams, and the entire organization.

MGMT 623 - Seminar in Personnel

Credits: 3

Prerequisite: MGMT 613

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.

MGMT 627 - Organizational Behavior

Credits: 3

Examines organization behavior is to help students define and be able to articulate critical factors that affect behavior within public and private organizations. This course studies the impact that individuals, groups, organizational structure and processes have on behavior within organizations. As a result, students will be able to improve their ability to navigate diverse organizational systems as well as manage individuals and teams in large and small organizations.

Cross-Listed: ELR 627

MGMT 635 - Seminar in Management and Organizational Leadership

Credits: 3

Prerequisite: MGMT 613

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.

MGMT 637 - Operations and Supply Chain Management

Credits: 3

Emphasize the new paradigm of operations management with focus on current technologies and managerial practices that help optimize the operations function in an industrial setup. Students will obtain a comprehensive insight on a wide variety of topics, including quality control, productivity enhancement, technology deployment, inventory control, product and process design, facility location and layout, project planning and control, lean manufacturing, forecasting time-series models, and other relevant quantitative modeling tools in operations and supply chain management.

MGMT 650 - International Business

Credits: 3

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

Credits: 3

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

Credits: 3

Prerequisite: Graduate Standing.

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.

MGMT 681 - Special Topics in Management

Credits: 3

Prerequisite: Permission of the instructor and of the Eberly College of Business and Information Technology graduate coordinator.

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.

MGMT 695 - Strategic Management

Credits: 3

Introduction to the concepts of strategic management through lectures and case analyses while considering the basic direction and goals of an organization and its environment (social, political, technological, economic, and global factors), industry and market structure, and organizational strengths and weaknesses. The emphasis is on the development and successful implementation of strategy in different types of firms across industries.

MGMT 698 - MBA Internship

Credits: 1.5 or 3

Prerequisite: Completion of 15 graduate credits and approval of department chair and graduate coordinator.

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.

MGMT 699 - Independent Study in Management

Credits: 1-3

Prerequisite: Approval of department chairperson and Eberly College of Business and Information Technology graduate coordinator.

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.

MGMT 795 - Thesis

Credits: 4-6

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

Credits: 3

Prerequisite: Student in the PhD in Business program.

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.

MGMT 860 - Global Competitiveness and Sustainability

Credits: 3

Prerequisite: Student in the PhD in Business program.

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.

Cross-Listed: MKTG 860

MGMT 880 - Global Supply Chain Management – Theory and Practice

Credits: 3

Prerequisite: Student in the PhD in Business program.

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.

MGMT 895 - Doctoral Seminar in Business

Credits: 3

Prerequisite: Student in the PhD Business Program

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.

Cross-Listed: FIN 895

MGMT 896 - Doctoral Seminar in Management

Credits: 6

Prerequisite: Enrollment in the PhD in Business program or permission.

Introduces Ph.D. students to basic and applied research in a specific area of business—organizational behavior and human resources management.

MGMT 995 - Doctoral Dissertation in Business

Credits: 1-12

Prerequisite: Student in the PhD business program.

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.

Cross-Listed: FIN 995

MGMT 996 - PhD Dissertation: Management

Credits: 1-12

Prerequisite: Qualified IUP Business PhD candidates or permission.

Provides students an opportunity to conduct independent original research and disseminate their findings in oral and written formats. Dissertation defense is required. Culminating scholarly activity for the PhD in Business program.

Marketing

MKTG 521 - Marketing Research

Credits: 3

Prerequisite: MKTG 320.

Dual-Listed Class

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.

MKTG 530 - International Marketing

Credits: 3

Prerequisite: MKTG 320.

Dual-Listed Class

International marketing is analyzed with consideration given to the significance of government regulation, organization structures of export and import enterprises, and credit policies.

MKTG 531 - Business-to-Business Marketing

Credits: 3 cr

Prerequisite: MKTG 603

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.

MKTG 533 - Advertising

Credits: 3

Prerequisite: MKTG 603

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.

MKTG 534 - Business Logistics: Technical Analyses and Applications

Credits: 3

Implements a technical and analytical approach for designing and executing the logistics functions within business supply chains. Analyzes and evaluates the key logistical domains of order processing, inventory functions, warehousing, transportation, distribution, and customer service elements using quantitative methods and management science techniques. Applies a systems perspective for optimization of logistical parameters toward industrial marketing and operations efficiencies in the varied dynamics of transactional fulfillment. Provides exposure to technology-based enterprise-wide systems for business process integration.

MKTG 536 - Retail and Omnichannel Management

Credits: 3

Prerequisite: MKTG 320 or MKTG 603

Introduces retailing and omnichannel management including the synergistic optimization of all retail channels and customer touchpoints for an integrated customer retail experience.

MKTG 539 - Internet Marketing

Credits: 3

Prerequisite: MKTG 320 or equivalent.

Dual-Listed Class

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.

MKTG 540 - Direct Marketing

Credits: 3

Prerequisite: Pre-requisites: MKTG 603.

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.

MKTG 543 - New Product Design and Branding

Credits: 3

Prerequisite: MKTG 603

Dual-Listed Class

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.

MKTG 544 - Green Marketing

Credits: 3

Prerequisite: MKTG 603.

Dual-Listed Class

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.

MKTG 545 - Social Media Marketing

Credits: 3

Prerequisite: MKTG 603.

Dual-Listed Class

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.

MKTG 546 - Marketing Ethics

Credits: 3

Prerequisite: MKTG 603.

Dual-Listed Class

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.

MKTG 550 - Marketing Strategy

Credits: 3

Prerequisite: MKTG 603

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.

MKTG 581 - Special Topics in Marketing

Credits: 1-3

Prerequisite: Permission of instructor and Eberly College of Business and Information Technology graduate coordinator.

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.

MKTG 603 - Marketing Analysis and Decision Making

Credits: 3

Prerequisite: MKTG 320.

Applies an analytical approach to problemsolving and decision-making activities within the contemporary marketing environment. Provides strategic and tactical evaluations of marketing actions and performance analyses for the planning, development, implementation, and control of the firm's marketing program.

MKTG 606 - Advances in Global Marketing

Credits: 3

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 611 - Marketing Communications

Credits: 3

Prerequisite: MKTG 603

Basic principles of marketing communications, such as sales promotion and advertising, together with a consideration for the major problems encountered in the management of those activities. Emphasizes the determination of basic promotional strategy, selection of advertising media, determination of advertising appropriations, and advertising research.

MKTG 650 - International Business

Credits: 3

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

Credits: 3

Prerequisite: Permission of the instructor and of the Eberly College of Business and Information Technology graduate coordinator.

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.

MKTG 698 - MBA Internship

Credits: 1.5 or 3

Prerequisite: Completion of 15 graduate credits and approval of department chair and graduate coordinator.

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.

MKTG 699 - Independent Study in Marketing

Credits: 1-3

Prerequisite: Approval of department chairperson and Eberly College of Business and Information Technology graduate coordinator.

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.

MKTG 795 - Thesis

Credits: 4-6

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 811 - Theory Building and Research Methods

Credits: 3

Prerequisite: Student in the PhD business program.

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.

Cross-Listed: ISDS 811

MKTG 850 - Marketing Theory

Credits: 3

Prerequisite: Student in the PhD business program.

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.

MKTG 860 - Global Competitiveness and Sustainability

Credits: 3

Prerequisite: Student in the PhD in Business program.

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.

Cross-Listed: MGMT 860

Master's in Education

MEDU 590 - Improving Professional Practice in Instructional Settings

Credits: 1-3

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

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.

MEDU 591 - Improving Professional Practice in Instructional Settings

Credits: 1-3

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

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.

MEDU 761 - Connecting Community and School

Credits: 3

Focuses on the connections between families, schools, businesses, philanthropic organizations, and educational agencies that are essential for preparing 21st century learners. Students will explore intellectual, social, and performance benefits of engaged and synergistic relationships related to the diverse demands of a pluralistic society.

MEDU 762 - Teaching Academically-Diverse Learners

Credits: 3

Equips students with the tools to facilitate instruction with academically-diverse learners in 21st Century classrooms. Coursework will target evidence-based strategies for teaching academic content, classroom management, and student motivation for those who are at-risk of academic difficulties. The course will address strategies for underrepresented students and those identified with disabilities in all academic environments. Instruction will be situated in the principles of a cognitive apprenticeship framework with an emphasis on teacher modeling.

MEDU 763 - Educational Research and Practical Application

Credits: 3

Supports the integration of research to enhance student learning in the university and in their own workplace. Students will learn to apply new ideas regarding Qualitative and Quantitative innovations while reflecting on their learning and outcomes. This asynchronous course will prepare students to develop their knowledge of research methodologies and practical applications. Each will aid students in understanding their research responsibilities and opportunities in 21st Century schools. Students will apply scholarly research to teaching and learning; and use qualitative and quantitative methodologies to advance research and practice.

MEDU 764 - Educational Technology for Today and Tomorrow

Credits: 3

Enhances students' understanding of the current technologies in the classroom. Students will learn to apply a research-based, design-oriented approach to facilitate technology-assisted learning. Major

themes such as lesson design, age-appropriate strategies across grade-levels, assessment, data analysis, and challenges associated with integrating technologies will be reviewed.

MEDU 765 - Curriculum, Assessment, and Reflection

Credits: 3

Facilitates students' theoretical and practical knowledge about curriculum, assessment, and the process of continuous reflection. Utilizing a critical lens of inquiry, students will investigate 21st Century issues such as the school organization, and academic, social, and political issues. Exploring instructional approaches, strategies for assessment, and the concept of the reflective practitioner, students will bridge theory and practice through the application of projects to day-to-day classroom activity and engagement.

MEDU 766 - Teacher as Leader

Credits: 6

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.

Mathematics

MATH 516 - Data Science Fundamentals

Credits: 3

Prerequisite: Introductory statistics course, introductory computer programming course, and database management course.

Dual listed as MATH 316

Introduces the field of data science by covering the methodology in which data-intensive problems are identified, defined, and solved. Investigates data analysis and data mining techniques for finding patterns in data that emphasize using data models, data gathering and storage, selection and preparing of data, model building and testing, and interpreting and validating results. Utilizes hands-on experiences with data science tools and techniques, specific topics include map-reduce and mining data streams. Includes techniques for visualizing patterns in data, including interactive visualization.

MATH 518 - Sampling Survey Theory and Its Applications

Credits: 3

Prerequisite: (for non-Math majors) MATH 214, MATH 216, MATH 217, or GSR 516.

Dual-Listed Class

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.

MATH 521 - Advanced Calculus I

Credits: 3

Prerequisite: Permission of the advisor.

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.

MATH 522 - Advanced Calculus II

Credits: 3

Prerequisite: Permission of the advisor.

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.

MATH 523 - Complex Variables I

Credits: 3

Prerequisite: Permission of the advisor.

Dual-Listed Class

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.

MATH 525 - Applied Mathematical Analysis I

Credits: 3

Prerequisite: Calculus sequence, introductory linear algebra, or permission of the instructor.

Dual-Listed Class

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.

MATH 527 - Topology

Credits: 3

Prerequisite: Differential and Integral Calculus.

Dual-Listed Class

Basic topological concepts, including some topological invariant relationships between topology and other disciplines of mathematics, are discussed.

MATH 545 - Deterministic Models in Operations Research

Credits: 3

Prerequisite: Two semesters of calculus and one semester of linear algebra.

Dual-Listed Class

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.

MATH 546 - Probabilistic Models in Operations Research

Credits: 3

Prerequisite: Two semesters of calculus, one semester of introductory linear algebra, and introductory probability and statistics.

Dual-Listed Class

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.

MATH 547 - Modeling and Simulation

Credits: 3

Prerequisite: Two semesters of calculus, one semester of introductory linear algebra, and introductory probability and statistics.

Dual-Listed Class

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.

MATH 548 - Financial Mathematics

Credits: 3

Dual listed as MATH 448

Provides a rigorous mathematical treatment of the theory associated with financial transactions. Geometric series and other concepts are used to construct mathematical models for analytically pricing various financial securities based on the time value of money. The course studies how to construct mathematical models for pricing cash flows and explores the equivalency of different cash flows. Topics include a detailed study of interest theory and financial economics. This course prepares students for the Society of Actuaries Financial Mathematics (FM) exam.

MATH 551 - Numerical Methods for Supercomputers

Credits: 3

Prerequisite: Permission of the instructor.

Dual-Listed Class

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.

MATH 553 - Theory of Numbers

Credits: 3

Prerequisite: Differential and Integral Calculus.

Dual-Listed Class

Elementary properties of divisibility, congruences, Chinese remainder theories, primitive roots and indices, quadratic reciprocity, diophantine equations, and number theoretic functions.

MATH 563 - Mathematical Statistics I

Credits: 3

Prerequisite: Differential and Integral Calculus.

Dual-Listed Class

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.

MATH 564 - Mathematical Statistics II

Credits: 3

Prerequisite: MATH 563

Dual-Listed Class

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.

MATH 571 - Linear Algebra

Credits: 3

Dual-Listed Class

Theory of vector spaces and linear transformations, applications to linear equations, determinants, and characteristic roots are studied.

MATH 576 - Abstract Algebra I

Credits: 3

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 577 - Abstract Algebra II

Credits: 3

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

Credits: 3

Prerequisite: Consent of instructor.

Special Topics going beyond the scope of regularly offered courses. Students may take more than one topic seminar with approval of advisor. Offered per student interest/available staff.

MATH 610 - Real-Data Approach to Teaching Mathematics

Credits: 3

Prerequisite: Permission of the instructor.

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.

MATH 618 - Data Science Theory & Application

Credits: 3

Prerequisite: MATH 516

Dual-listed as MATH 418

Covers acquiring, managing, and analyzing massive unstructured data through a project-driven approach. Includes theoretical analysis of clustering, visualization, link analysis, recommendation systems, mining social network graphs, dimensionality reduction with PCA and SVD, large-scale machine learning, neural nets and deep learning, distributed file systems, incremental data processing with Hadoop, NoSQL databases, cloud computing, and data security issues. Covers applications in web advertising, business, engineering, health care and social networks. Implements a computational project utilizing machine learning and artificial intelligence techniques that includes theoretical analysis of a large-scale, data-driven model.

MATH 625 - Analysis for Applied Mathematics

Credits: 3

Prerequisite: Calculus sequence and introductory linear algebra or permission of the instructor.

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.

MATH 631 - Foundations of Mathematics

Credits: 3

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

Credits: 3

Prerequisite: Calculus sequence, introductory linear algebra, and programming literacy, or permission of the instructor.

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.

MATH 641 - Ordinary and Partial Differential Equations

Credits: 3

Prerequisite: MATH 625 or permission of the instructor.

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.

MATH 643 - Graphs, Networks, and Combinatorics

Credits: 3

Prerequisite: Calculus sequence.

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.

MATH 645 - Nonlinear Programming Models

Credits: 3

Prerequisite: MATH 525 and MATH 545 or equivalent courses.

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.

MATH 647 - Advanced Simulation

Credits: 3

Prerequisite: MATH 545 and MATH 563

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.

MATH 650 - Themes in the History of Mathematics

Credits: 3

Prerequisite: A calculus sequence.

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.

MATH 651 - Seminar in Teaching Junior High School Mathematics

Credits: 3

Prerequisite: Permission of instructor.

Explores problems of teaching mathematics at junior high level. Emphasis on a discovery, labor-oriented approach to teaching.

MATH 652 - Seminar in Teaching Senior High School Mathematics

Credits: 3

Prerequisite: Permission of instructor.

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.

MATH 654 - Curriculum and Supervision in Mathematics

Credits: 3

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

Credits: 3

Prerequisite: Undergraduate courses in linear algebra and geometry.

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.

MATH 665 - Applied Regression Analysis and Design of Experiments

Credits: 3

Prerequisite: MATH 564 or permission of the instructor.

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 twofactor 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.

MATH 667 - Applied Statistical Methods

Credits: 3

Prerequisite: MATH 564 or permission of the instructor.

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.

MATH 681-683 - Special Topics in Mathematics

Credits: 3

Prerequisite: Consent of the instructor.

Special Topics in graduate mathematics beyond the scope of regularly offered graduate classes. With approval of the advisor, more than one Special Topics class may be taken. Offered as student interest and available staff permit.

MATH 684 - Topics in Operations Research

Credits: 3

Prerequisite: Permission of the instructor.

Special Topics in operations research beyond the scope of regularly offered graduate courses. Offered as student interest and available staff permit.

MATH 685 - Topics in Probability and Statistics

Credits: 3

Prerequisite: Permission of the instructor.

Special Topics in probability and statistics beyond the scope of regularly offered graduate classes. Offered as student interest and available staff permit.

MATH 688 - Topics in Applied Mathematics

Credits: 3

Prerequisite: Permission of the instructor.

Special Topics in applied mathematics beyond the scope of regularly offered graduate classes. Offered as student interest and available staff permit.

MATH 698 - Internship

Credits: 1-6

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

Credits: 3

Under the guidance of faculty member, a student may study some area of mathematics not included in the regular courses.

MATH 795 - Thesis

Credits: 3

Mathematics Education

MAED 517 - Probability and Statistics for Elementary/Middle Level Teachers

Credits: 3

Prerequisite: Enrolled in the Master of Education Mathematics Education

Explores the concepts of teaching of probability and statistics to elementary and middle level students. Explores curricular materials, resources, and activities relevant to teaching diverse groups at the elementary and middle level.

MAED 520 - Patterns and Functions for Elementary/Middle Level Teachers

Credits: 3

Prerequisite: Enrolled in the Master of Education Mathematics Education

Examines the function concept as applied to elementary and middle level 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. Introduces beginning calculus concepts. Explores curricular materials that develop function concepts in grades Pre-K-8.

MAED 556 - Geometry for Elementary/Middle Level Teachers

Credits: 3

Prerequisite: Enrolled in Master of Education in Mathematics Education

Explores an informal, intuitive approach to teaching geometry to elementary and middle level students. Activities and materials for teaching geometrical concepts to Pre-K-8 are an integral part of the course.

MAED 557 - Introduction to Number Theory

Credits: 3

Prerequisite: Enrolled in the Master of Education in Mathematics Education

Introduces 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.

MAED 558 - Introduction to Logic and Logical Games

Credits: 3

Prerequisite: Enrolled in the Master of Education in Mathematics Education

Introduces the basic ideas, terminology, and notation of logic as it appears in the elementary and middle level mathematics curriculum. Considers topics including 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.

MAED 559 - Technology-Related Topics in Mathematics

Credits: 3

Prerequisite: Enrolled in the Master of Education Mathematics Education

Provides teachers with skills that will enable them to use technology as a tool to support students' engagement in and learning of mathematics. Examines grade-level appropriate technologies and their effective uses in the mathematics classrooms such as dynamic geometry software, interactive web applications, calculators, and data collection probes.

MAED 561 - Discrete Mathematics for Elementary/Middle Level Teachers

Credits: 3

Prerequisite: Enrolled in Master of Education in Mathematics Education

Examines 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.

MAED 571 - Algebra for Elementary/Middle Level Teachers

Credits: 3

Prerequisite: Enrolled in Master of Education Mathematics Education

Includes multiple representations of sequences, integers, expressions, equations, systems of equations, inequalities, and matrices. Examines different representations of expressions and equations will be employed through the use of hand-on and visual aids and with appropriate technology. Makes connections with the teaching and learning of algebraic concepts at the Elementary and Middle Level.

MAED 611 - Algebra for Secondary Teachers

Credits: 3

Prerequisite: Appropriate major or permission of the instructor.

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.

MAED 612 - Geometry for Secondary Teachers

Credits: 3

Prerequisite: Appropriate major or permission of the instructor.

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.

MAED 613 - Probability and Statistics for Secondary Teachers

Credits: 3

Prerequisite: Appropriate major or permission of the instructor

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.

MAED 614 - Pre-calculus and Discrete Math for Secondary Teachers

Credits: 3

Prerequisite: Appropriate major or permission of the instructor.

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.

MAED 616 - Writing in Mathematics Education

Credits: 3

Prerequisite: Appropriate major or permission of the instructor.

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.

MAED 617 - Teaching Proportional Reasoning

Credits: 3

Prerequisite: Enrolled in the Master of Education in Mathematics Education or instructor permission.

Explores essential components of proportional reasoning; extends understanding of the underlying concepts of proportional reasoning taught at the elementary, middle, and secondary levels; examines appropriate use of technology and manipulatives, innovative curricula and materials, and methods, research and standards related to teaching proportional reasoning at all levels.

MAED 618 - Mathematics and Cognition

Credits: 3

Prerequisite: Enrolled in the Master of Education in Mathematics Education or instructor permission

Familiarizes K-12 teachers with how the brain learns mathematics. Covers topics including cognitive mechanisms for learning mathematics, factors that contribute to learning and difficulties with learning, and instructional strategies for the preschool through adolescent brain.

MAED 650 - Curriculum and Instruction in Mathematics Education

Credits: 3

Prerequisite: Enrolled in the Master of Education Mathematics Education

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.

MAED 652 - Differentiated Instruction in Mathematics Education

Credits: 3

Prerequisite: Enrolled in Master of Education in Mathematics Education.

Explores topics related to essential components of differentiated instruction in a mathematics classroom through the exploration of tools, simulations, discussions, and research. Provides opportunities to create original differentiated products and reflect on how differentiated instruction connects to the classroom. Differentiated strategies will be embedded and modeled.

MAED 654 - Teaching of Problem Solving in Mathematics Education

Credits: 3

Prerequisite: Appropriate major or permission of the instructor.

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.

MAED 660 - Survey of Research in Mathematics Education

Credits: 3

Prerequisite: Appropriate major or permission of the instructor.

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.

MAED 681 - Special Topics

Credits: 3

Prerequisite: Methods course in teaching mathematics or consent of instructor.

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.

MAED 698 - Supervised Internship

Credits: 3

Prerequisite: Enrolled in the Master of Education in Mathematics Education

Provides 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.

MAED 699 - Mathematics Education—Independent Study

Credits: 1-6

Allows for the study in some area of mathematics or mathematics education not covered in regular courses.

MAED 795 - Thesis

Credits: 3

Music

MUSC 501 - Advanced Choral Conducting

Credits: 2

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

Credits: 2

An intensive study of large instrumental works. Skill development of each individual will be stressed.

MUSC 503 - Practicum in String Pedagogy

Credits: 1

Prerequisite: FBI, Act 34, and Act 151 clearances, approval of instructor.

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.

MUSC 510 - Seminar in Music

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

Prerequisite: Graduate status in music.

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.

MUSC 520 - Professional Practices

Credits: 3

Dual-Listed Class

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

Credits: 2

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

Credits: 1-3

Concentration in special interest areas. Content varies.

MUSC 551 - Italian and English Diction

Credits: 2

MUSC 553 - French Diction

Credits: 2

MUSC 554 - German Diction

Credits: 2

MUSC 575 - Music Ensemble

Credits: 1-3

Provides graduate students with the opportunity to participate in music ensembles. Each student must audition for ensemble placement at the beginning of each semester.

MUSC 581 - Special Topics

Credits: 1-3

MUSC 600 - Bibliography of Music

Credits: 3

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

Credits: 3

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

Credits: 3

Includes learning strategies, experiences, and activities appropriate for introducing comprehensive musicianship at elementary and secondary school levels.

MUSC 620 - Foundations of Music Education

Credits: 3

Study of historical, philosophical, and social foundation of music education, including educational thought and implications for school music programs.

MUSC 622 - Composition II

Credits: 3

MUSC 623 - Composition III

Credits: 3

MUSC 631 - Administration and Advocacy in Music Education

Credits: 2

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

Credits: 3

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

Credits: 2

Prerequisite: Graduate status in music.

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.

MUSC 636 - Advanced Technology of Music Education

Credits: 2

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

Credits: 2

Prerequisite: Graduate status in music education, Inservice practice in music education.

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.

MUSC 681 - Special Topics

Credits: 1-4

MUSC 698 - Internship

Credits: 3

MUSC 699 - Independent Study in Music

Credits: 1-6

MUSC 795 - Thesis

Credits: 4

Music History

MUHI 503 - Music of the Baroque Era

Credits: 3

A survey of music from about 1600 to 1750.

MUHI 504 - Music of the Classical Era

Credits: 3

A survey of music from about 1725 to about 1827.

MUHI 508 - Music of the Sixteenth Century

Credits: 3

A survey of music from about 1500 to 1600.

MUHI 520 - Music Since 1900

Credits: 3

Prerequisite: MUHI 302.

Dual-Listed Class

Examines selected trends in European and American art music since 1900.

MUHI 521 - Topics in American Music

Credits: 3

Prerequisite: Graduate standing in music

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.

MUHI 525 - Nineteenth-Century Music

Credits: 3

Dual-Listed Class

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 - Special Topics

Credits: 3

MUHI 681 - Special Topics

Credits: 3

Nursing

NURS 511 - Advanced Health Assessment

Credits: 2

This clinical course will build upon the basic assessment techniques of the registered nurse. It is designed to provide the student with the ability to assess the health status of adults. This course will enable the student to collect a comprehensive health history and perform complete physical examination on adults from various backgrounds. Examination techniques and identification of deviations from normal will be the focus.

NURS 554 - Transitions to Advanced Professional Nursing

Credits: 3

Designed for graduate nursing students with a bachelor's degree in a field other than nursing. Provides foundational knowledge related to leadership, quality and safety, evidence-based practice, health care policy, inter-professional collaboration, and health promotion and disease prevention.

NURS 555 - Healthcare Informatics

Credits: 3

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.

Cross-Listed: HSAD 555

NURS 581 - Special Topics

Credits: 3

Topical courses offered on an experimental basis.

NURS 610 - Health Promotion and Social Issues

Credits: 3

Dual-Listed Class

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 612 - Pathophysiology for Advanced Practice Nursing

Credits: 3

This course will provide an advanced study of the basic mechanisms that explain organ/system function and dysfunction. Emphasis will be placed on pathologic processes underlying common health problems. The rationale for diagnostic studies and therapeutic interventions will be underscored. Systems to be examined include immune, cardiovascular, respiratory, gastrointestinal, renal and neurologic.

NURS 613 - Pharmacology for Advanced Practice Nursing

Credits: 3

The course will focus on principles of pharmacology and the application of drugs on specific disease states. Emphasis will be placed on the understanding of pharmacodynamics and pharmacokinetics and the selection of specific drugs for certain clinical disorders.

NURS 614 - Health Policy and Patient Advocacy

Credits: 3

Prerequisite: Junior Standing

Dual-Listed Class

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.

NURS 619 - Leadership in Health Care

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

Topical courses offered on an experimental basis.

NURS 699 - Independent Study

Credits: 3

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

Credits: 3

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

Credits: 3

Prerequisite: NURS 723, NURS 725.

Prepares the nurse educator in advanced physical assessment, pathophysiology, and pharmacology. Clinical experiences will provide opportunities in both the clinical setting and classroom for students to demonstrate advanced clinical practice essential to the nurse educator role. Use of simulated, mentored clinical experiences, and case studies will provide students with an opportunity to apply course content using an inter-professional approach to collaborative practice.

NURS 722 - Measurement and Evaluation in Nursing Education

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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 730 - Financial Management in Health Care

Credits: 3

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.

Cross-Listed: HSAD 730

NURS 731 - Nursing Administration Capstone

Credits: 3

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

Credits: 3

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

Credits: 3

Prerequisite: NURS 511, NURS 612 and NURS 620.

Corequisite: NURS 610, NURS 613

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.

NURS 735 - Aggregates in the Community

Credits: 3

Prerequisite: NURS 734

Corequisite: NURS 622

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.

NURS 736 - Leadership in Community Health Nursing

Credits: 3

Prerequisite: NURS 735

Corequisite: NURS 614

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.

NURS 743 - Nursing Education Capstone

Credits: 3

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

Credits: 3

Prerequisite: NURS 623, NURS 722, NURS 723, and NURS 725 OR NURS 623, NURS 729, and NURS 730 or by permission.

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.

NURS 795 - Thesis

Credits: 3-6

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

Credits: 1-3

Prerequisite: Permission.

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.

NURS 802 - Leadership in Nursing: A Case Study Approach

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

Prerequisite: GSR 517

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.

NURS 952 - Qualitative Nursing Research

Credits: 3

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

Credits: 3

Prerequisite: NURS 951 and NURS 952.

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.

NURS 954 - Research Seminar II

Credits: 3

Prerequisite: NURS 951 and NURS 952.

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.

NURS 993 - Nursing Professoriate Practicum

Credits: 3

Prerequisite: NURS 860, NURS 861, NURS 862, NURS 863, and NURS 864.

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.

NURS 994 - Dissertation Seminar

Credits: 3

Prerequisite: NURS 820 or by permission for DNP students. Pre or Co-requisite: NURS 954

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.

NURS 995 - Dissertation

Credits: 1-9

Prerequisite: By permission

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.

Philosophy

PHIL 560 - Philosophy of Language

Credits: 3

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

Credits: 3

PHIL 599 - Independent Study

Credits: 1-6

Physics

PHYS 501 - Theoretical Physics

Credits: 3

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

Credits: 1-3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 4

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

Credits: 3

Prerequisite: PHYS 535

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.

PHYS 541 - Analytical Mechanics I

Credits: 2

Kinematics, particle dynamics, gravitation, free and forced harmonic motion. Treatment of these topics utilizes vector calculus and differential and integral calculus.

PHYS 545 - Optics

Credits: 3

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

Credits: 2

Coulomb's law, electrostatic potential, Gauss's law, and dielectrics will be presented using vector calculus in a modern field formalism.

PHYS 555 - Computer Interfacing

Credits: 3

Prerequisite: Experience in writing computer programs in the C language.

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.

PHYS 561 - Quantum Mechanics I

Credits: 3

Prerequisite: PHYS 541 and PHYS 531 or equivalent.

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.

PHYS 565 - Introduction to Nuclear Physics

Credits: 3

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

Credits: 3

Prerequisite: PHYS 533, PHYS 535, PHYS 545, or permission of instructor.

Dual-Listed Class

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.

PHYS 590 - Solid State Physics

Credits: 3

Prerequisite: PHYS 531

Dual-Listed Class

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.

PHYS 599 - Special Studies

Credits: 1-6

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

Credits: 2

Prerequisite: Permission of department.

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.

PHYS 601 - Theoretical Physics I

Credits: 3

Prerequisite: Permission of department.

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.

PHYS 602 - Theoretical Physics II

Credits: 3

Prerequisite: PHYS 601

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.

PHYS 611 - Computational Physics

Credits: 3

Prerequisite: PHYS 473/PHYS 561, or equivalent, or permission of the instructor.

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.

PHYS 634 - Statistical Mechanics

Credits: 3

Corequisite: PHYS 561 or its equivalent.

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.

PHYS 641 - Advanced Mechanics I

Credits: 3

Includes the following topics: Lagrange's equations, Hamilton's Principle. Two-body central force, Euler's Theorem, small oscillations, Hamilton's equations, canonical transformations.

PHYS 651 - Advanced Electromagnetic Theory I

Credits: 3

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.

PHYS 652 - Advanced Electromagnetic Theory II

Credits: 3

Prerequisite: PHYS 651

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.

PHYS 657 - Solid State Theory

Credits: 3

Corequisite: PHYS 561 or its equivalent.

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.

PHYS 658 - Physics and Applications of Industrial Materials

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 1-6

Prerequisite: Permission of department.

Introduction to advanced research problems through individual assignment.

PHYS 699 - Independent Study

Credits: 1-6

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

Credits: 1-6

PHYS 799 - Internship Experience

Prerequisite: Completion of 12 IUP graduate credits with a minimum of a 3.0 grade point average. 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.

Political Science

PLSC 500 - Research Methods in Political Science

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 1-3

In-depth study of a specific problem or topic not regularly treated in courses. May be repeated.

PLSC 582 - Political Studies: Africa

Credits: 3

Comparative study of government and politics of Africa.

PLSC 583 - Political Studies: Asia

Credits: 3

Comparative study of government and politics of Asia.

PLSC 584 - Political Studies: Middle East

Credits: 3

Comparative study of government and politics of the Middle East.

PLSC 587 - Political Studies: Latin America

Credits: 3

Comparative study of government and politics of Latin America.

PLSC 588 - Dimensions of National Security

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3-6

Prerequisite: Must have approval of instructor and department chairperson.

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.

PLSC 699 - Independent Study

Credits: 1-3

Readings and written assignments on a specific topic determined by student and instructor in charge. May be repeated.

PLSC 744 - Terrorism

Credits: 3

Prerequisite: Enrolled in CRIM or PLSC graduate program, or permission of instructor.

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.

Cross-Listed: CRIM 744

PLSC 795 - Thesis

Credits: 3

Psychology

PSYC 554 - Developmental Psychology

Credits: 3

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

Credits: 3

Prerequisite: Permission.

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.

PSYC 581 - Special Topics

Credits: 3

Prerequisite: Permission.

Designed to examine Special Topics in depth. Students prepare presentations representing selected research areas.

PSYC 795 - Thesis

Credits: 1-6

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 - Univariate Research Methods

Credits: 3

Prerequisite: CNPC-PSYD students only

Covers basic principles of design and analysis in psychological research focusing primarily on univariate analyses and methodological issues in clinical research.

PSYC 802 - Multivariate Research Methods

Credits: 3

Prerequisite: PSYC 801 and PSYC 841.

Covers advanced principles of design and analysis that are particularly appropriate to clinical research and being competent consumers and designers of clinical research. Topics to be covered include: MANOVA, Logistic Regression, exploratory factor analysis, structural equation modeling, and general latent variable modeling.

PSYC 803 - Applied Research Methods

Credits: 3

Prerequisite: CNPC-PSYD students only; PSYC 801 or equivalent.

Provide students with skills to integrate information from their statistical and clinical courses so that they are able to take on the mindset of a local clinical scientist. The course will have both a conceptual and practical focus. Topics covered include: an introduction to quasi-experimental designs and methods for use in valid program evaluation.

PSYC 810 - Historical Trends in Psychology

Credits: 3

Prerequisite: CNPC-PSYD or SPSY-PHD students only

Examines important themes in the field of psychology that serve as the foundation for psychology as a science and practice.

PSYC 811 - Teaching of Psychology

Credits: 1

Prerequisite: CNPC-PSYD students only

Introduces the basic dimensions of the teaching process, including course planning and structure, developing and presenting lectures, using alternative pedagogical techniques, evaluating student performance, and addressing issues of diversity in the classroom. Skill-practice in these areas is emphasized.

PSYC 830 - Introduction to Therapeutic Techniques

Credits: 3

Prerequisite: CNPC-PSYD students only

Provides skill building in the development of effective treatment relationships as informed by the research literature on what makes psychotherapy and psychotherapists effective. Important professional and ethical issues in providing treatment to clients are raised. Didactic training is provided in carrying out an effective intake with clients that takes into account issues of individual differences and diversity of both client and therapist.

PSYC 831 - Advanced Therapeutic Techniques

Credits: 3

Prerequisite: CNPC-PSYD student only; PSYC 830

Provides didactic training in developing in-depth case conceptualizations and treatment plans using a variety of psychological perspectives. How these clinical tools can be used to provide a coherent and hope enhancing context for treatment are emphasized along with other factors that research has found enhance client outcomes. There is an emphasis on applying knowledge of client strengths as well as weaknesses to this process as well as an understanding of the client's unique identity/diversity.

PSYC 832 - Therapeutic Techniques Lab

Credits: 3

Prerequisite: CNPC-PSYD students only; PSYC 830 or equivalent

Provides didactic and experiential training in the tactics of achieving person, symptom, and system relevant change. Students will have the opportunity to provide treatment to a client through the therapy process

PSYC 833 - Clinical Group Techniques

Credits: 3

Prerequisite: CNPC-PSYD students only

Introduces students to the theory and practice of therapeutic group work. Students will be provided both instruction and experience with a variety of group techniques.

PSYC 834 - Couples and Family Therapy

Credits: 3

Prerequisite: CNPC-PSYD students only

Provides an overview of theoretical models covering the treatment of couples and families. Current research findings that form an empirical base for couple and family therapy are highlighted. Students are introduced to the basic clinical skills required for work with families and couples.

PSYC 835 - Adult Psychopathology

Credits: 3

Prerequisite: CNPC-PSYD or SPSY-PHD students only

Examines current diagnostic systems in use for understanding psychological disorders. Descriptions and causes of disorder covered in-depth and implications for treatment are drawn. Students will gain facility with the accurate use of formal diagnostic systems.

PSYC 836 - Personality and Psychotherapy

Credits: 3

Prerequisite: CNPC-PSYD students only

Reviews personality systems, including classic and integrative approaches, in a comparative manner. The underlying theoretical bases for major therapeutic approaches are covered.

PSYC 841 - Psychometrics and IQ Assessment

Credits: 3

Prerequisite: CNPC-PSYD students only

Provides an introduction to theoretical and practical issues in assessment of psychological functioning including conceptualizations of intelligence and ethical issues in its assessment. Principles of test construction and basic psychometrics will also be covered. Emphasis is on intellectual assessment of adults and children including administration, scoring, interpretation and report writing of standard

cognitive measures. Exposure to a variety of cognitive assessment tools will occur as well as development of clinical skills (interviewing, history taking) within the context of intellectual assessment.

PSYC 842 - Assessment of Personality and Psychopathology

Credits: 3

Prerequisite: CNPC-PSYD students only; PSYC 841

Provides an introduction to theoretical and practical issues in assessment of psychological functioning in the areas of objective and projective tests, behavioral observations, and self-report measures and other assessment techniques. Emphasis is on personality assessment of adults and children including administration, scoring, interpretation and report writing. Exposure to a variety of personality assessment tools will occur as well as development of clinical skills (interviewing, history taking) within the context of the assessment of personality and psychopathology.

PSYC 852 - Behavioral, Cognitive, and Affective Basis of Behavior

Credits: 3

Prerequisite: CNPC-PSYD or SPSY-PHD students only

Reviews major theories, principles, laws, and concepts in the psychology of behavior, cognition, and affect. Topics include classical, operant, cognitive, evolutionary, social, and connectionist models of learning. Applications of learning theory principles in changing maladaptive behavior both for individuals and groups will be emphasized.

PSYC 853 - Issues in Developmental Psychology

Credits: 3

Prerequisite: CNPC-PSYD students only

Provides an overview of some of the primary issues discussed by developmental psychologists and the interface of these issues within clinical psychology. In particular this course explores theories of development and developmental changes in human cognition, social interaction and personality with age and as they inform clinical psychology across the lifespan. Topics include: historical and current theories of cognitive and personality change, attachment, and issues in aging.

PSYC 854 - Seminar in Autism Spectrum Disorders

Credits: 2

Prerequisite: Enrollment in Clinical Psychology PsyD Program or instructor permission

Examination of theoretical, empirical, and clinical considerations in Autism Spectrum Disorders (ASD), including symptoms and diagnostic characteristics; etiology; developmental course; assessment of social, communicative, behavioral, and intellectual functioning; and treatment considerations.

PSYC 855 - Human Diversity

Credits: 3

Prerequisite: CNPC-PSYD students only

Examines the way(s) in which differences among people impact human interactions. The differences addressed include: ethnicity, race, social class, gender, sexual orientation and ability status. Theory, research and practice issues are examined in relation to themes of diversity including: identity, assimilation, culture, family, worldviews, systems of oppression, privilege, and intergroup conflict.

PSYC 856 - Psychopharmacology

Credits: 3

Prerequisite: CNPC-PSYD students only

Provides an introduction to various aspects of drugs and behavior. Topics include 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 experiences.

PSYC 857 - Clinical Neuropsychology

Credits: 3

Prerequisite: CNPC-PSYD students only

Introduces the study of brain-behavior relationships as they relate to clinical phenomena. Coverage will include clinical conditions: traumatic brain injuries, neoplasms, epilepsy, cerebrovascular dysfunction, amnesic disorders, and neurocognitive disorders (dementia, delirium). Neuropsychological assessment techniques will be included in the discussion of the clinical conditions.

PSYC 858 - Advanced Social Psychology

Credits: 3

Prerequisite: CNPC-PSYD or SPSY-PHD students only

Provides an advanced survey of the relationship between the social environment and human behavior. Topics include situational and environmental influences on behavior, social perception, human relationships, human behavior in social groups, inter-group conflict, and attitudes and attitude change. Contributions of social psychological research to clinical psychology will be examined.

PSYC 860 - Psychopathology of Children, Adolescents & Families

Credits: 3

Prerequisite: CNPC-PSYD students only

Provides an introduction to how the process of development influences what is considered normal and abnormal as they relate to children, adolescents and families. The research literature relevant to, and the clinical characteristics of, the major disorders of childhood are covered. Topics covered include: assessment, diagnosis, and primary prevention.

PSYC 861 - Psychology and Medicine

Credits: 3

Prerequisite: CNPC-PSYD students only

Provides an introduction to health psychology and its role in behavioral medicine and primary care.

Psychophysiology, pain management, lifestyle behavior change, and interfacing with the medical professions will be addressed.

PSYC 881 - Special Topics

Credits: 1-6

Prerequisite: Permission.

Designed to examine a Special Topics in depth. Students prepare presentations representing selected research areas.

PSYC 920 - Professional Issues and Ethics I

Credits: 1

Prerequisite: CNPC-PSYD students only

Provides an understanding of the major legal and ethical issues important to professional competency in the science and practice of psychology. Emphasis is placed on the regulation of the practice of psychology, American Psychological Association and state governance, theories of ethical conduct and fundamentals of ethical decision making.

PSYC 921 - Professional Issues and Ethics II

Credits: 1

Prerequisite: CNPC-PSYC students only; PSYC 920

Corequisite: PSYC 920

Reviews risk management regarding compliance with the legal and ethical standards set forth by APA, local and regional governing bodies. Particular emphasis is placed on professional practices for which psychologist are more likely to be sanctioned by national and regional regulatory bodies and best practices within ethical and legal boundaries for the profession.

PSYC 922 - Professional Issues and Ethics III

Credits: 1

Prerequisite: CNPC-PSYD students only; PSYC 920 and PSYC 921

Serves as capstone course for this sequence. Emphasis will be on APA practice guidelines and state rules governing the profession. Additionally, legal aspect of clinical practice will be examined including responding to subpoenas, legal decisions impacting the profession, the role of state boards, etc. Ethical and practice issues related to the interface with insurance companies and panels will also be covered including credentialing, billing and reporting issues. Ethical issues will be integrated with student's clinical experiences.

PSYC 943 - Psychological Assessment III

Credits: 3

Prerequisite: PSYC 842 or permission.

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.

PSYC 960 - Psychotherapeutic Techniques with Children, Adolescents and Families

Credits: 3

Prerequisite: CNPC-PSYD students only

Provides an introduction to how the process of development influences what styles of communication, treatment strategies, and assessment strategies are most effective for minors of different ages. How the diversity of the clinician, minor, and minor's family can interact within the treatment and assessment process are explored. Topics will include a review of empirically supported treatments for the major disorders of childhood and adolescence and ethical issues that arise in clinical practice with minors. Experiential practice in effective treatment and assessment strategies may also be provided.

PSYC 961 - Psychology and Medicine II

Credits: 3

Prerequisite: PSYC 861

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.

PSYC 962 - Clinical Hypnosis

Credits: 2

Prerequisite: CNPC-PSYD students only

Provides an in-depth study of theory, research, and the clinical practice of hypnosis. Students will practice hypnotic induction and hypnotic suggestions tailored to different clinical conditions.

PSYC 971 - Therapy Clinic I

Credits: 3

Prerequisite: CNPC-PSYD students only

Provides practicum experience within the Center for Applied Psychology. All therapeutic services are carried out under the supervision of a licensed clinical psychologist. A team training model will be used, wherein students will observe the work of their peers and participate in pre-session and post-session conferences.

PSYC 972 - Therapy Clinic II

Credits: 3

Prerequisite: CNPC-PSYD students only

Provides practicum experience within the Center for Applied Psychology. All therapeutic services are carried out under the supervision of a licensed clinical psychologist. A team training model will be used,

wherein students will observe the work of their peers and participate in pre-session and post-session conferences.

PSYC 973 - Assessment Clinic I

Credits: 3

Prerequisite: CNPC-PSYD students only

Practicum experience within the Assessment Clinic of the Center for Applied Psychology. A team training model (open group supervision) combined with close individual supervision is utilized. Emphasis is on skill development in interviewing, administration and scoring of psychological and neuropsychological assessment instruments, report writing, and consultation with community agencies and health care professionals. This course can be repeated.

PSYC 974 - Special Projects/Intake Clinic

Credits: 1-6

Prerequisite: PSYC 831, PSYC 842, PSYC 832, or their equivalents and instructor permission.

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.

PSYC 976 - Introduction to Supervision & Consultation

Credits: 3

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

Credits: 1-6

Prerequisite: Permission.

Examines Special Topics in depth. Students prepare presentations representing selected research areas.

PSYC 982 - Independent Study in Psychology

Credits: 1-6

Prerequisite: Permission.

Individual students develop and conduct research studies in consultation with a faculty member.

PSYC 993 - Advanced Psychological Practicum

Credits: 1-21

Prerequisite: Permission.

Provides supervised experience in applied settings. Variable credit, depending on setting.

PSYC 994 - Internship

Credits: 3

Prerequisite: CNPC-PSYD students only; Successful completion of the Clinical Proficiency Examination and proposal meeting for Dissertation.

This one-year clinical experience is 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. This may/can involve clinical assessment and/or therapy. Gaining an internship is a competitive experience involving considerable preparation prior to application. This application process, and how matching between student and internship site occurs, follows the procedures of the American Psychological Association. This is a full-time experience for twelve months.

PSYC 995 - Doctoral Dissertation

Credits: 3-9

Culminating scholarly activity requiring the mastery of an area of professional interest. It requires a review of relevant literature and the collection and analysis of data. An oral presentation of the proposal prior to carrying it out and an oral defense of the finished project are required.

Quantitative Business

QBUS 500 - Foundations of Business Statistics

Credits: 3

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

Credits: 3

Dual-Listed Class

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

Credits: 3

QBUS 601 - Mathematical Modeling and Decision Making

Credits: 3

Teaches various management science and statistical techniques to model real world business problems and apply selected techniques to solve those business problems. Students will learn the philosophy of approaching business problems in a logical fashion, modeling them and then arriving at a solution. The use of computer applications to arrive at solution and interpret the solution is emphasized. Topics include (but may not be limited to) introduction to probability and hypotheses testing. ANOVA, Multiple Regression, Multicriteria Decision Making, Linear Programming, and Decision Analysis.

QBUS 604 - Seminar in Methodology of Business Research

Credits: 3

Prerequisite: QBUS 601

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.

Rehabilitation

RHAB 590 - Improving Professional Practice in Instructional Settings

Credits: 1-3

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

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.

RHAB 591 - Improving Professional Practice in Instructional Settings

Credits: 1-3

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

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.

Safety Sciences

SAFE 520 - Law and Ethics in the Safety Profession

Credits: 3

Prerequisite: Permission of the instructor.

Dual-Listed Class

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.

SAFE 541 - Accident Investigation

Credits: 3

Prerequisite: Permission of instructor.

Dual-Listed Class

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.

SAFE 542 - Current Issues in Safety

Credits: 3

Prerequisite: SAFE 211 and SAFE 301 or permission of the instructor.

Dual-Listed Class

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.

SAFE 543 - Construction Safety

Credits: 3

Prerequisite: Must be enrolled as a graduate level Safety Sciences major.

Dual-Listed Class

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.

SAFE 561 - Air Pollution

Credits: 3

Prerequisite: CHEM 101 and 102 or equivalent and SAFE 301 or equivalent courses or permission of the instructor.

Dual-Listed Class

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.

SAFE 562 - Radiological Health

Credits: 3

Prerequisite: SAFE major or permission of instructor.

Dual-Listed Class

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.

SAFE 565 - Right-to-Know Legislation

Credits: 3

Prerequisite: SAFE 301 and SAFE 311 or permission of the instructor.

Dual-Listed Class

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.

SAFE 581 - Special Topics

Credits: 3

Prerequisite: Permission of the instructor.

A dual-level elective offering in which the specific topic may vary from one term to the next.

SAFE 602 - Research Methods in Safety Management

Credits: 2

Corequisite: SAFE 791

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.

SAFE 603 - Human Relations in Safety Management

Credits: 3

Prerequisite: SAFE major or permission of instructor.

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.

SAFE 604 - Industrial Toxicology

Credits: 3

Prerequisite: CHEM 101, CHEM 102, MATH 217, or permission of instructor.

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.

SAFE 605 - Application of Safety Engineering Principles

Credits: 3

Prerequisite: PHYS 111, MATH 105, or equivalent, or permission of instructor.

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.

SAFE 606 - Hazardous Materials Management

Credits: 3

Prerequisite: SAFE 311, CHEM 101, and CHEM 102 or permission of the instructor.

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.

SAFE 610 - Safety, Health, and Environmental Administration

Credits: 3

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

Credits: 3

Prerequisite: SAFE 412 or permission of instructor.

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.

SAFE 621 - Programming Safe Behavior

Credits: 3

Prerequisite: Permission of the instructor.

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.

SAFE 623 - Advanced Safety Administration

Credits: 3

Prerequisite: SAFE major or permission of instructor.

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.

SAFE 624 - Solving Safety Problems

Credits: 3

Prerequisite: SAFE 603 or permission of the instructor.

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.

SAFE 625 - Risk Strategies for the SH&E Professional

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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.

SAFE 660 - Applied Industrial Hygiene

Credits: 3

Prerequisite: CHEM 101, SAFE 330, and SAFE 430 or equivalent, or permission of the instructor.

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.

SAFE 663 - Industrial Hygiene Laboratory Methods

Credits: 3

Prerequisite: SAFE 302 and SAFE 303 or permission of instructor.

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.

SAFE 664 - Industrial Noise Control

Credits: 3

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

Credits: 3

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

Credits: 3

Prerequisite: SAFE 311 or equivalent or permission of instructor.

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.

SAFE 681 - Special Topics

Credits: 3

Prerequisite: Permission of instructor.

A graduate-student-only elective offering in which the specific topics may vary from one term to the next.

SAFE 699 - Independent Study

Credits: 3

Prerequisite: Permission of instructor.

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.

SAFE 701 - Environmental Impact Analysis and Documentation

Credits: 3

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 - Disaster Preparedness

Credits: 3

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 - Fire Safety in Building Design

Credits: 3

Prerequisite: Must be enrolled as a Graduate Level Safety Sciences major.

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.

SAFE 791 - Capstone Project in Safety Sciences

Credits: 1

Corequisite: Concurrent registration in SAFE 602.

Students will be required to submit a comprehensive project based on the cumulative knowledge and skills acquired in the program coursework.

SAFE 795 - Thesis

Credits: 1-6

Prerequisite: Permission of instructor.

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.

SAFE 800 - Pedagogical Practices in Safety Education

Credits: 3

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 801 - Environmental Impact Analysis and Documentation

Credits: 3

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 802 - Safety Management Systems

Credits: 3

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

Credits: 3

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

Credits: 3

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.

SAFE 805 - Strategies in Risk Control

Credits: 3

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

Credits: 3

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 - Doctoral Colloquium in Safety Sciences

Credits: 3

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

Credits: 3

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 809 - Human Performance and Organizational Safety Theory

Credits: 3

Presents advanced topics in the field of human performance and organizational safety theory. Evaluates human performance and organizational safety theory research methodology and research priorities. Applies safety theory and analytical, quantitative and qualitative tools to tackle large-scale or complex human performance and organizational safety behavioral issues. Covers and promotes leading edge research, analysis and discussion as defined by recent and relevant published research.

SAFE 810 - Applied Research I: Experimental Design

Credits: 3

Covers experimental and advanced multivariate statistical procedures, including analysis of variance

(ANOVA), multivariate analysis of variance (MANOVA), analysis of covariance (ANCOVA), post-hoc tests, planned comparisons, and randomized block designs.

SAFE 811 - Applied Research II: Multivariate Analysis

Credits: 3

This course will explore multivariate analysis techniques commonly used in safety sciences research. Topics include multiple regression, exploratory and confirmatory factor analysis, and linear discriminant analysis.

SAFE 812 - Applied Research III: Tests and Measurements

Credits: 3

Introduces students to testing and measurement topics as they specifically pertain to the field of occupational safety. Includes test validity and reliability, test and measurement interpretation, survey design and construction, sampling strategies and qualitative analysis of information. Describes the social, legal and ethical aspects of occupational safety testing.

SAFE 813 - Practicum in Safety Education

Credits: 3

Prerequisite: SAFE 800, SAFE 808.

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.

SAFE 814 - Advanced Topics in Ergonomics

Credits: 3

Presents advanced topics in the field of ergonomics (physical, cognitive, and organizational). Evaluates research methodologies and priorities. Provides expertise and analytical, quantitative and qualitative tools required to tackle complex ergonomic issues in the workplace. Covers and promotes leading edge research, analysis and discussions by reviewing and analyzing published research.

SAFE 815 - Advanced Topics in Industrial Hygiene

Credits: 3

Presents advanced topics in the field of industrial hygiene. Evaluates research methodologies and research priorities. Provides expertise and analytical, quantitative and qualitative tools required to tackle complex industrial hygiene issues. Covers and promotes leading edge research, analysis and discussions by reviewing published research.

SAFE 873 - Disaster Preparedness

Credits: 3

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 874 - Fire Safety in Building Design

Credits: 3

Prerequisite: Must be enrolled as a Graduate Level Safety Sciences major.

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.

SAFE 995 - Dissertation

Credits: 1-12

Student Affairs in Higher Education

SAHE 590 - Improving Professional Practice in Instructional Settings

Credits: 1-3

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

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.

SAHE 591 - Improving Professional Practice in Instructional Settings

Credits: 1-3

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.

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.

SAHE 621 - History of Higher Education in the United States

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

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

Credits: 3

Prerequisite: SAHE 621, SAHE 624, and SAHE 625

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.

SAHE 638 - Topical Areas in Student Affairs

Credits: 3

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

Credits: 3

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

Credits: 3

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 648 - Student Success in Higher Education

Credits: 3

Explores the concept of "student success" and experiences that are noted to lead to success, as defined more broadly than simply high grades in college. Emphasis is on high impact practices and the needs of various student populations that can be addressed through higher education and student affairs professional work, leading to student success.

SAHE 681 - Special Topics

Credits: 3

SAHE 698 - Internship

Credits: 3

Prerequisite: Permission only.

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.

SAHE 713 - Legal Issues in Student Affairs

Credits: 3

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

Credits: 3

Prerequisite: Admission to the SAHE program or permission of instructor.

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.

SAHE 731 - Practicum in Student Affairs

Credits: 3

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. Students may also take SAHE 731 a third time as the third elective.

SAHE 733 - Management of Organizational Behavior in Higher Education

Credits: 3

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

Credits: 3

Prerequisite: SAHE 621 and SAHE 624

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.

SAHE 737 - College Students in the United States

Credits: 3

Examines the culture of undergraduate students in U.S. 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

Credits: 3

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 781 - Special Topics

Credits: 3

SAHE 795 - Thesis

Credits: 3 or 6

Sociology

SOC 517 - Global Service Learning

Credits: 3

Prerequisite: Permission of the instructor.

Dual-Listed Class

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.

SOC 527 - Social Perspectives on Intimate Partner Violence

Credits: 3

Dual-Listed Class

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

Credits: 3

Dual-Listed Class

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

Credits: 3

Dual-Listed Class

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

Credits: 3

Dual-Listed Class

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 - Special Topics in Sociology

Credits: 3-6

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 681 - Special Topics in Sociology

Credits: 3-6

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 - Internship

Credits: 3-6

Prerequisite: Permission.

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.

SOC 699 - Independent Study in Sociology

Credits: 1-3

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

Credits: 1

Prerequisite: Graduate standing in the Sociology Master's Program.

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.

SOC 704 - Social Policy

Credits: 3

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

Credits: 3

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 - Scholarly Writing in the Social Sciences

Credits: 3

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.

SOC 709 - Contemporary Sociological Theory

Credits: 3

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 - Sociology of Human Services

Credits: 3

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

Credits: 3

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 - Sociology of Health Care

Credits: 3

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 - Seminar in Alcohol and Drug Abuse

Credits: 3

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 - Addiction and the Family

Credits: 3

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 - Sociology of the Family

Credits: 3

Prerequisite: Graduate only.

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.

SOC 744 - The Sociology of Deviance

Credits: 3

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 - Theories of Sociological Social Psychology

Credits: 3

Prerequisite: Graduate standing

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.

SOC 748 - Gender and Society

Credits: 3

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 - Social Inequality

Credits: 3

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 - Social Change

Credits: 3

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 - Aging and Society

Credits: 3

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 - Analysis of Social Data

Credits: 3

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 - Quantitative Research Methods I

Credits: 3

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 - Quantitative Research Methods II

Credits: 3

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 - Qualitative Research Methods

Credits: 3

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 - Survey Research Methods

Credits: 3

Prerequisite: SOC 762/LDRS 862 and either SOC 705 or SOC 763/LDRS 863; or permission of the instructor
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.

SOC 777 - Teaching Sociology

Credits: 3

Prerequisite: Graduate standing in Sociology or permission of the instructor.

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.

SOC 781 - Special Topics in Sociology

Credits: 3-6

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 795 - Thesis

Credits: 3-6

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

Credits: 3-6

Prerequisite: Permission.

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.

SOC 799 - Independent Study in Sociology

Credits: 1-3

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 807 - Scholarly Writing in the Social Sciences

Credits: 3

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.

SOC 810 - Sociology of Human Services

Credits: 3

Introduction to the theoretical and applied roles of human services in our society. Organizational theories, delivery systems models, and implementation issues are discussed.

SOC 821 - Sociology of Health Care

Credits: 3

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 830 - Seminar in Alcohol and Drug Abuse

Credits: 3

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 832 - Addiction and the Family

Credits: 3

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 836 - Sociology of the Family

Credits: 3

Prerequisite: Graduate only.

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.

SOC 844 - The Sociology of Deviance

Credits: 3

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 846 - Theories of Sociological Social Psychology

Credits: 3

Prerequisite: Graduate standing

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.

SOC 848 - Gender and Society

Credits: 3

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 854 - Social Inequality

Credits: 3

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 856 - Social Change

Credits: 3

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 857 - Aging and Society

Credits: 3

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 867 - Survey Research Methods

Credits: 3

Prerequisite: SOC 762/LDRS 862 and either SOC 705 or SOC 763/LDRS 863; or permission of the instructor
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.

SOC 881 - Special Topics in Sociology

Credits: 3-6

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 899 - Independent Study in Sociology

Credits: 1-3

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.

Speech-Language Pathology

SPLP 590 - Improving Professional Practice in Instructional Settings

Credits: 1-3

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.
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.

SPLP 591 - Improving Professional Practice in Instructional Settings

Credits: 1-3

Prerequisite: Appropriate teaching certificate or other professional credential or preparation.
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.

SPLP 604 - Diagnostic Methods

Credits: 3

Corequisite: SPLP 662

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.

SPLP 610 - Pediatric Speech & Language Disorders 1

Credits: 3

Examines speech and language differences, delays, and disorders in the birth to 5-year-old population. Population-specific anatomical, physiological, developmental, psychological, and cultural correlates related to speech sound production, phonology, and language disorders are discussed. Methods of prevention, evaluation, and treatment of these early childhood disorders are presented. Relationships between phonology, language, and early literacy skills are explored. Disorder-specific considerations for clinical reasoning, evidence-based practice, cultural competence, collaborative practice, ethical conduct, and accountability are addressed.

SPLP 611 - Pediatric Speech & Language Disorders 2

Credits: 3

Examines speech and language differences, delays, and disorders in the 5 to 18-year-old population. Population-specific anatomical, physiological, developmental, psychological, and environmental factors related to speech sound production, phonology, and language disorders are discussed. Methods of prevention, evaluation, and treatment of these school-age disorders are presented. Relationships between phonology, language, and literacy are explored. Disorder and population specific considerations for clinical reasoning, evidence-based practice, cultural competence, collaborative practice, ethical conduct, and accountability are addressed.

SPLP 614 - Swallowing Disorders

Credits: 3

Examines the oral, pharyngeal, and esophageal function of the swallow across the lifespan, including feeding and orofacial myology. Anatomical, physiological, psychological, neurological, and environmental factors related to disorder etiology and presentation are discussed. Methods of prevention, evaluation, and treatment of swallowing and feeding disorders are presented. Relationships between swallowing, feeding, and health outcomes are explored. Disorder specific considerations for clinical reasoning, evidence-based practice, cultural competence, collaborative practice, ethical conduct, and accountability are addressed.

SPLP 616 - Fluency and Motor Speech Disorders

Credits: 3

Examines the presentation and classification of speech dysfluencies and dysarthrias across the lifespan.

Anatomical, physiological, psychological, neurological, and environmental factors related to disorder etiology and presentation are discussed for fluency and motor speech disorders. Methods of prevention, evaluation, and treatment are presented. Relationships between fluency disorders and psychosocial aspects of communication are explored. Disorder specific considerations for clinical reasoning, evidence-based practice, cultural competence, collaborative practice, ethical conduct, and accountability are addressed.

SPLP 618 - Voice Disorders

Credits: 3

Examines the presentation and classification of speech dysfluencies and dysarthrias across the lifespan. Anatomical, physiological, psychological, neurological, and environmental factors related to disorder etiology and presentation are discussed for fluency and motor speech disorders. Methods of prevention, evaluation, and treatment are presented. Relationships between fluency disorders and psychosocial aspects of communication are explored. Disorder specific considerations for clinical reasoning, evidence-based practice, cultural competence, collaborative practice, ethical conduct, and accountability are addressed.

SPLP 632 - Neurogenic Communication Disorders

Credits: 3

Examines the systemic nature of adult neurogenic disorders that affect language and cognition. Anatomical, physiological, psychological, neurological, and environmental factors related to disorder etiology and presentation are discussed. Methods of prevention, evaluation, and treatment of acquired neurogenic communication disorders of language and cognition, including aphasia, traumatic brain injury, and dementia are presented. Relationships between neurogenic communication disorders and functional outcomes are explored. Disorder specific considerations for clinical reasoning, evidence-based practice, cultural competence, collaborative practice, ethical conduct, and accountability are addressed.

SPLP 635 - Seminar in Communication

Credits: 4

Prerequisite: Speech-Language Pathology major, admission to degree candidacy, and advisor approval. 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.

SPLP 642 - Cancer & Congenital Disorders

Credits: 2

Examines classification of various head and neck cancer diagnoses and congenital craniofacial anomalies. Anatomical, physiological, psychological, neurological, and environmental factors related to disorder etiology and presentation are discussed. Methods of prevention, evaluation, and treatment of cancer and congenital craniofacial related communication disorders are presented. Disorder specific

considerations for clinical reasoning, evidence-based practice, cultural competence, collaborative practice, ethical conduct, and accountability are addressed.

SPLP 643 - Counseling for Communication Disorders

Credits: 1

Examines counseling domains within the speech-language pathology scope of practice. Methods of counseling by providing education, guidance, and support to individuals, families and caregivers associated with communication and swallowing disorders are presented. Counseling on topics of acceptance, adaptation, and decision-making about communication and swallowing disorders are discussed. Cultural considerations, ethical conduct, accountability and referrals to other professionals are addressed.

SPLP 644 - Professional Issues

Credits: 2

Examines professional issues such as employment preparedness, professional competencies, ethics, quality of care, practice policies and laws, documentation, accountability, interprofessional education and practice, cultural competence, and certification.

SPLP 661 - Treatment Clinic

Credits: Var. 2-6

Prerequisite: MS Degree Candidacy in Speech-Language Pathology

Provides experiences in the treatment of communication and swallowing disorders. Scaffolded experiences include opportunities for interpreting, integrating, synthesizing and applying core knowledge. Treatment planning, clinical teaching, data collection, documentation, communication counseling, and interprofessional practice skills are developed. Professional dispositions are identified and evaluated. The direct clinical contact hours are supervised by a certified speech-language pathologist. Course can be repeated for credit.

SPLP 662 - Diagnostic Clinic

Credits: 3

Prerequisite: Must be enrolled in the following majors: Speech Language Pathology.

Corequisite: SPLP 604

Provides experiences in screening, evaluation and diagnosis of communication and swallowing disorders. Scaffolded clinical and simulation experiences include opportunities for interpreting, integrating, synthesizing and applying core knowledge. Skills are developed in evaluation planning, case history review, multicultural considerations, interviewing, data collection and analysis, differential diagnosis, documentation, communication counseling, report writing, and interprofessional practice. Professional dispositions are identified and evaluated. The direct clinical contact hours are supervised by an ASHA certified speech-language pathologist.

SPLP 663 - Hearing Clinic

Credits: 1

Prerequisite: MS Degree Candidacy in Speech-Language Pathology

Provides experiences in hearing screening that are within the speech-language pathology scope of practice, including instrumental screening of pure tones, tympanometry, and otoacoustic emissions. Scaffolded experiences include opportunities for interpreting, integrating, and synthesizing core knowledge. Case history review, instrumentation, documentation, referrals, and interprofessional practice skills are developed. The relationship between hearing and the development, prevention, evaluation, and treatment of communication disorders will be explored. Professional dispositions are identified and evaluated. The direct clinical contact hours are supervised by an ASHA certified speech-language pathologist or audiologist.

SPLP 664 - Simulation Clinic

Credits: 1

Prerequisite: MS Degree Candidacy in Speech-Language Pathology

Provides simulated experiences in the evaluation and treatment of swallowing disorders. Computer-based and live simulation scenarios in a hospital simulation lab are paired to provide scaffolded task training and healthcare experiences that include case history review, standard precautions, instrumental evaluation, clinical decision-making, patient/caregiver counseling, electronic medical record documentation, multiskilling, and interprofessional practice. Simulation scenarios are embedded with contemporary issues in religious, cultural, and linguistic diversity, psychosocial considerations, and ethical dilemmas. Professional dispositions are identified and evaluated. The direct clinical contact hours are supervised by an ASHA certified speech-language pathologist.

SPLP 681 - Special Topics

SPLP 795 - Thesis

Credits: 3

SPLP 796 - Internship: Adult Placement

Credits: 6

Prerequisite: Successful completion of all prior MS Speech-Language Pathology program academic and clinical coursework.

Provides full-time, full semester clinical practicum experience in a contracted healthcare facility with interprofessional practice opportunities. The clinical experience focuses on service delivery to a predominantly adult caseload. Professional dispositions are identified and evaluated. The direct clinical contact hours are supervised by an ASHA certified speech-language pathologist.

SPLP 798 - Internship: Pediatric Placement

Credits: 6

Prerequisite: Successful completion of all prior MS Speech-Language Pathology program academic and clinical coursework.

Provides a full-time, full-semester clinical practicum experience in a contracted school or healthcare facility interprofessional practice opportunities. The clinical experience focuses on service delivery to a predominantly pediatric caseload. Professional dispositions are identified and evaluated. The direct clinical contact hours are supervised by an ASHA certified speech-language pathologist.

SPLP 799 - Independent Study

Credits: 3

Theater

THTR 586 - Practicum in Production

Credits: 1-6

Prerequisite: Permission.

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.

THTR 693 - Internship

Credits: 1-12

Prerequisite: Permission.

Supervised working experience in the context of a professional theater environment in a company employing professional actors, directors, and/or designers.

Vocational Education

VOED 600 - Curriculum Development in Career and Technical Education

Credits: 3

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.

Cross-Listed: BTED 600

VOED 601 - Curriculum and Instructional Leadership in Career and Technical Education

Credits: 3

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.

Cross-Listed: BTED 601

VOED 602 - Conference Leadership and Communication Methods in Career and Technical Education

Credits: 3

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.

Cross-Listed: BTED 602

VOED 603 - Management of Instruction for Career and Technical Education

Credits: 3

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.

Cross-Listed: BTED 603

VOED 604 - Curriculum Supervision in Career and Technical Education

Credits: 3

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.

Cross-Listed: BTED 604

VOED 605 - Policy Administration

Credits: 3

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.

Cross-Listed: BTED 605

VOED 606 - Leadership for Career and Technical Educators

Credits: 3

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.

Cross-Listed: BTED 606

VOED 607 - Organizations and Structure for Career and Technical Education

Credits: 3

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.

Cross-Listed: BTED 607

VOED 608 - Legal and Legislative Issues in Career and Technical Education

Credits: 3

Provides an understanding of the current legal and legislative issues that exist in the implementation of career and technical education.

VOED 610 - Personnel & Student Management in Career and Technical Education

Credits: 3

Develop skills necessary for a career and technical director to supervise career and technical personnel and effectively manage career and technical students. Students will examine practical hiring practices, professional development activities, and negotiation techniques all in reference to Acts 45, 48, and 82. Students will explore the structure and purpose of Joint Operating Committees (JOC), ultimately planning meeting agendas for JOC meetings. Embedded field-experiences will occur through JOC agenda planning, teacher induction program development and presentation of in-service professional development activities with guidance from the supporting Career and Technical Center (CTC) administrator.

VOED 611 - School Code and Policy in Career and Technical Education

Credits: 3

Examines the Pennsylvania School Code and federal regulations and the application for the effective operation of approved career and technical programs in Pennsylvania. Implementation of school policies related to Chapter 339, Act 49 Vocational Education Certification standards and required occupational advisory committees is stressed. Embedded field-experiences will occur through analysis of Chapter 339, Act 49 and Civil Rights audit recommendations, occupational advisory evaluation and grant writing with the guidance from the supporting Career and Technical Center (CTC) administrator.

VOED 612 - Fiscal Responsibilities and Financial Oversight in Career and Technical Education

Credits: 3

Develop a practical understanding of the career and technical center (CTC) director's role in budget and facilities oversight as authorized by the Joint Operating Committee (JOC). Students will explore facilities management of a school building including day-to-day management and planning for the future. Embedded field-experiences will occur through budget analysis, healthcare projection, and facilities improvement plan recommendations with the guidance from the supporting Career and Technical Center (CTC) administrator.

VOED 613 - School Law and Legal Responsibilities in Career and Technical Education

Credits: 3

Expose students to landmark and current cases in school law as well as the impact of PA School Code and application to the operation of a Career and Technical Center (CTC). Application of The Individuals with Disabilities Education Act (IDEA) within a CTC, as well as current education trends is also emphasized. Embedded field-experiences will occur through advocacy project and Individualized Education Plan (IEP) simulation with guidance from the supporting career and technical center (CTC) administrator.

VOED 614 - Curriculum Development and Analysis in Career and Technical Education

Credits: 3

Evaluate elements to build strong work-based career and technical education (CTE) programs including curriculum development research, curriculum resources and curriculum mapping. Examines the roles these elements play in the analysis, design, development, implementation, and evaluation of the CTE programs of study curriculum. Includes review of Pennsylvania Academic and Career Education and Work Standards, and Pennsylvania Programs of Study (POS). Delves into curriculum considerations including Occupational Advisory Committee (OAC) input, industry-recognized student credentials, and program accreditation. Within these parameters, other curricular areas explored will be mandated safety instruction, development of articulation agreements, and supplementing curriculum in the workplace with cooperative education programs. Embedded field-experiences will occur through occupational advisory committee involvement, assisting a CTE instructor with developing a curriculum

map, and analysis of end-of-program assessment data for targeted competency area improvements with guidance from the supporting career and technical center (CTC) administrator.

VOED 615 - Administrative Leadership in Career and Technical Education

Credits: 3

Focuses on roles of an administrator in a career and technical center (CTC). Includes research on administrative leadership styles and planning for development of personal leadership abilities. Analyzes unique characteristics of career and technical education (CTE) programs and different delivery systems. Embedded field-experiences will occur through administrative interviews and comparisons, planning and conducting a building tour and description of operations to orient new Joint Operating Committee (JOC) members and a local service organization with guidance from the supporting career and technical center (CTC) administrator.