



**IUP Graduate Handbook**

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**Master of Science in Safety Sciences**

Department of Safety Sciences

MS in Safety Sciences  
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## INTRODUCTION

Welcome to Indiana University of Pennsylvania. The purpose of this handbook is to act as a supplement to the official IUP Graduate Catalog. This handbook is intended to augment the university-wide policies and School of Graduate Studies and Research (GSR) policies. The Graduate School Policies can be found at this link: <https://www.iup.edu/graduatestudies/>

Most importantly, the handbook provides additional clarification of university policies and GSR regulations that are of concern to master's degree students in Safety Sciences.

The second objective of the handbook is to provide a detailed description and explanation of the master's degree experience specific to the discipline of Safety Sciences.

Finally, the handbook makes available, early on, suggestions regarding the process of being, and demands on, a student in a master's degree program. The intent is to help guide the student toward achieving a M.S. in Safety Sciences in the most expedient and personally satisfying way possible.

### IUP's Civility Statement

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

**To strengthen the university for academic success**, I will act honestly, take responsibility for my behavior and continuous learning, and respect the freedom of others to express their views.

**To foster an environment for personal growth**, I will honor and take care of my body, mind, and character. I will be helpful to others and respect their rights. I will discourage intolerance, hatred, and injustice, and promote constructive resolution of conflict.

**To contribute to the future**, I will strive for the betterment of the community; myself, my university, the nation, and the world.

### Affirmative Action

[www.iup.edu/gradcatalog](http://www.iup.edu/gradcatalog)

### Title IX Reporting Requirement

[www.iup.edu/gradcatalog](http://www.iup.edu/gradcatalog)

### **Student Conduct and Student Rights**

[www.iup.edu/studentconduct/policies/](http://www.iup.edu/studentconduct/policies/)  
[www.iup.edu/gradcatalog](http://www.iup.edu/gradcatalog)

### **Department of Safety Sciences**

The Department of Safety Sciences, which now resides within the College of Health and Human Services, was established in 1971 to conduct professional programs in safety management. The program evolved into Safety Sciences in the 1980's, and the Master of Safety Sciences degree was added in 1983. The MS in Safety Sciences program was designated a Qualified Academic Program (QAP) in summer of 2017 per the Board of Certified Safety Professionals (BCSP). Graduates from a QAP can apply for and be granted the Graduate Safety Practitioner designation, which benefits the student by eliminating one of the required examinations in becoming a Certified Safety Professional (CSP).

### **Mission Statement and Program Objectives**

As an institution of higher learning, Indiana University of Pennsylvania (IUP) is committed to the preservation, expansion, and transmission of knowledge in all its forms. As a university within the Pennsylvania State System of Higher Education, IUP has primary responsibilities of providing high quality education at a reasonable cost and assessing and responding to the higher educational needs of the commonwealth; as a university, IUP has the responsibility of being concerned with the needs of the nation as a whole and those of the international community at large so far as its resources allow.

At the graduate level, IUP is committed to encouraging intellectual excellence, research, and scholarship, to provide in-depth study in each student's special field; and to stimulate continued cultural and intellectual growth for faculty and students.

### **College of Health and Human Services Mission Statement**

The College of Health & Human Services serves the public interest by providing a quality education to prepare students for applied professional disciplines. Graduates will affirm high personal and professional standards, provide leadership, and be committed to creating and advancing knowledge in their disciplines.

### **Department of Safety Sciences Mission Statement**

The mission of the Department of Safety Sciences at Indiana University of Pennsylvania is to prepare highly qualified individuals for careers in the Safety, Health, and Environmental (SHE) profession, conduct SHE research, and develop industry partnerships to further enhance the profession.

### Master of Science in Safety Sciences Mission Statement

The mission of the MS in Safety Sciences program is to prepare highly qualified individuals for careers in the safety, health, and environmental (SHE) profession, conduct SHE research, and develop industry partnerships to further enhance the profession.

### Master of Science in Safety Sciences Program Objectives

The MS Program in Safety Sciences program provides students with an education that:

1. Expands their knowledge and skills of the Safety, Health and Environmental field.
2. Teaches advanced research and communication skills.
3. Enhances their leadership skills.
4. Develops their understanding of their professional and ethical responsibilities within the Safety, Health and Environmental field.

### Faculty and Staff

<i>Faculty Member</i>	<i>Office</i>	<i>Phone Number</i>	<i>E-mail Address</i>
Dr. Christopher Janicak	136 Johnson Hall	724-357-3274	<a href="mailto:cjanicak@iup.edu">cjanicak@iup.edu</a>
Dr. Jan Wachter	137 Johnson Hall	724-357-3275	<a href="mailto:Jan.wachter@iup.edu">Jan.wachter@iup.edu</a>
Dr. Laura Rhodes	138 Johnson Hall	724-357-2357	<a href="mailto:lhrhodes@iup.edu">lhrhodes@iup.edu</a>
Dr. Tracey Cekada	125 Johnson Hall	724-357-3272	<a href="mailto:cekadat@iup.edu">cekadat@iup.edu</a>
Dr. Wanda Minnick	122 Johnson Hall	724-357-3276	<a href="mailto:Wanda.Minnick@iup.edu">Wanda.Minnick@iup.edu</a>
Dr. Majed Zreiqat	121 Johnson Hall	724-357-4455	<a href="mailto:zreiqat@iup.edu">zreiqat@iup.edu</a>
Dr. Luz Marin	123 Johnson Hall	724-357-3270	<a href="mailto:Luz.marin@iup.edu">Luz.marin@iup.edu</a>
Mr. Bryan Seal	125 Johnson Hall	724-357-3272	<a href="mailto:Bryan.Seal@iup.edu">Bryan.Seal@iup.edu</a>

#### **Dr. Wanda Minnick, CSP**

Master's Degree Program Coordinator  
[Wanda.Minnick@iup.edu](mailto:Wanda.Minnick@iup.edu) 724-357-3276

#### **Dr. Tracey Cekada, CHSP, CSP**

Department Chairperson  
[Tracey.Cekada@iup.edu](mailto:Tracey.Cekada@iup.edu) 724-357-3019

## Admission

Admission to the MS in Safety Sciences program requires the same admission procedures established for admission to the School of Graduate Studies and Research, located at the following link:

<https://www.iup.edu/admissions/graduate/>

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.

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.

Instructions on how to apply to graduate school can be found at this link:

<https://www.iup.edu/admissions/graduate/howto/>

## Financial Assistance

### Graduate Assistantships

The Department of Safety Sciences is typically allocated a limited number of Graduate Assistantships (GA) each year. Assistantship awards are based upon academic achievement, academic honors, and prior experience that would be beneficial to complete work required by faculty members. In order to be considered for a graduate assistantship, the following requirements must be met:

1. Admission to the School of Graduate Studies and Research following the procedures outlined in the Catalog,
2. Submission of a Safety Sciences GA application to the Department of Safety Sciences. When new Graduate Assistantships are available, the Safety Sciences GA application form is

sent to current students in the program and prospective candidates that have inquired about the program.

3. Successful completion of the department review process.

Graduate assistantships are available for students enrolled part-time and full-time. Graduate assistants may be offered a position at 10 hours, or 20 hours per week during the academic term and may be awarded for one term (fall or spring) or for two terms (fall and spring). All graduate assistants receive a stipend and tuition dollars. Stipends for assistantships may change from year to year. Applicants should check with the Graduate Program Coordinator for current stipend levels.

### **Graduate Assistant Conduct**

Graduate Assistant conduct is premised on professionalism. GAs who are not adequately performing their assignments and tasks as part of their assistantship or violating the University's code of conduct will be dismissed from their assistantship which would result in loss of tuition waivers and stipends.

1. Attend the orientation session and be available to work. GAs must be on campus and available to begin their assistantship duties by the date specified in their letter of agreement. GAs will be contacted via letter and/or e-mail about an orientation session for the Fall semester.
2. Understand the terms of the agreement. All GAs bear responsibility for reading the correspondence that they receive, checking the specifics of their contracts, and complying with the terms of their agreements.
3. Duration of support. GAs who seek to continue for another semester must be in good academic standing and must reapply.
4. At the beginning of each semester, GAs will be assigned to a faculty member or a pair of faculty members. GAs will develop work schedules with their faculty member(s) and are expected to be at work during their scheduled times.
5. GAs must adhere to the IUP academic integrity policy. At no time is it appropriate to share information with other graduate students or undergraduate students regarding exams, quizzes or other assessment methods.
6. GAs should not be in the front main office area (area behind the counter, student file cabinet areas, copier, etc) unless asked to do something by your faculty supervisor that requires you to be in that area.
7. The copier should only be used to copy materials requested by faculty. The office copier should not be used to copy homework, other students' papers, and personal documents.



If selected for a Graduate Assistantship by the Safety Sciences Department, the student will then proceed through the requirements established by the Graduate School. Those requirements, such as a background check, are provided at this link: <https://www.iup.edu/graduatestudies/resources-for-current-students/assistantships/>

Additional information regarding job duties and other relevant information is available in the Graduate Assistant handbook located at this link: <https://www.iup.edu/graduatestudies/resources-for-current-students/assistantships/>

- [www.iup.edu/admissions/graduate/financialaid/assistantships-and-scholarships/](http://www.iup.edu/admissions/graduate/financialaid/assistantships-and-scholarships/)
- Office of Financial Aid: [www.iup.edu/financialaid/](http://www.iup.edu/financialaid/)

### **Academic Advisement**

Students are assigned an academic advisor within the Department of Safety Sciences at the time of admission. The advisor will help students plan their course schedule, select electives, approve transfer credits, and provide guidance with program requests. The Graduate Program Coordinator is an additional resource for discussion of University and Departmental policies and program requirements. The student maintains the responsibility for fulfilling program requirements, meeting deadlines, etc. Students are referred to the Graduate School catalog for additional policy information.

Course Registration is accomplished through ‘My IUP’ which is an account the university helps to establish with the student once admitted. Through ‘My IUP’, students can schedule classes, access grades, and seek computer account information. You access ‘My IUP’ using the 8-digit permanent identification number (Banner ID) that is assigned to you upon acceptance to the university. You can access <https://www.iup.edu/myiup/> at any time of the day from any location. Registration for all classes is the responsibility of the student. You must complete the registration process before the start of IUP’s semester to avoid paying a late fee. View the IUP Academic Calendar for important dates: <https://www.iup.edu/news-events/calendar/academic/>. Your Advisor will send your four-digit Alternate PIN to your IUP email address prior to each registration period.

### **Campus Resources & Student Support**

The School of Graduate Studies and Research: [www.iup.edu/graduatestudies/](http://www.iup.edu/graduatestudies/)  
Graduate Catalog: [www.iup.edu/gradcatalog](http://www.iup.edu/gradcatalog)  
Office of the Bursar: [www.iup.edu/bursar/](http://www.iup.edu/bursar/)  
Office of the Registrar: [www.iup.edu/registrar/](http://www.iup.edu/registrar/)  
Disability Support Services: [www.iup.edu/disabilitysupport/](http://www.iup.edu/disabilitysupport/)  
Office of Social Equity: [www.iup.edu/social-equity/](http://www.iup.edu/social-equity/)  
IUP Campus Library [www.iup.edu/library/](http://www.iup.edu/library/)  
MyIUP: [www.iup.edu/myiup/](http://www.iup.edu/myiup/)  
IT Support Center: [www.iup.edu/itsupportcenter/](http://www.iup.edu/itsupportcenter/)  
Veterans and Service Members: [www.iup.edu/veterans/resource-center/](http://www.iup.edu/veterans/resource-center/)  
IUP Writing Center: [www.iup.edu/writingcenter/](http://www.iup.edu/writingcenter/)

IUP Career and Professional Development Center: [www.iup.edu/career/](http://www.iup.edu/career/)  
IUP Parking Services and Visitor Center <http://www.iup.edu/parking/>  
University Police <http://www.iup.edu/police/> | 724-357-2141  
Crisis Intervention 24/7 Hotline: 1-877-333-2470  
Student Registration: [www.iup.edu/registrar/students/registration/](http://www.iup.edu/registrar/students/registration/)

### **IUP Email**

IUP offers an email account to all active students. **Your IUP email address is the primary means by which the university will contact you with official information and you should use for all IUP official communications. It is your responsibility to check your IUP email regularly.** Visit [www.iup.edu/itsupportcenter/howTo.aspx?id=23401](http://www.iup.edu/itsupportcenter/howTo.aspx?id=23401) to learn more about setting up this account. For more information regarding University policy on email communication, view the Graduate Catalog: [www.iup.edu/gradcatalog](http://www.iup.edu/gradcatalog)

### **Graduate Student Assembly**

The Graduate Student Assembly (GSA) represents the graduate student body's interests at IUP and within the Indiana community. The GSA makes recommendations related University-wide and graduate-specific policies and in areas of concern in the cultural, intellectual, and social life of the part- and full-time graduate student. Visit [www.iup.edu/graduatestudies/gsa](http://www.iup.edu/graduatestudies/gsa) for more information.

### **Programs and Degrees**

#### **Master's Program**

The Department of Safety Sciences offers a 36-credit online education leading to a Master of Science degree in Safety Sciences. The total time needed to complete the degree is approximately two years. Distance education courses have a weekly required chat room. Students with identified deficiency areas in the undergraduate preparation will be required to take additional coursework as part of their program of study. Information on deficiencies is in Appendix A. Students can be admitted to this program in any semester.

#### Course Descriptions

The M.S. in Safety Sciences consists of the following courses. The current catalog is the official listing of courses and program requirements. In the event there are differences between what is listed here, the Graduate Catalog information supersedes.

#### Core Courses (24 credits)

SAFE 602 Research Methods in Management  
SAFE 791 Capstone Project in Safety Sciences  
SAFE 605 Application of Engineering Principles  
SAFE 610 Safety Health and Environmental Administration  
SAFE 644 Preventing Unsafe Acts  
SAFE 647 Applied Ergonomics  
SAFE 660 Applied Industrial Hygiene  
SAFE 701 Environmental Impact Analysis and Documentation  
SAFE 774 Fire Safety in Building Design

#### Advisor-Approved Controlled Electives (12 credits)

Four elective courses are required. Electives are offered on a rotating basis. Examples of elective courses include:

SAFE 541 Accident Investigation  
SAFE 543 Construction Safety  
SAFE 562 Radiological Health  
SAFE 603 Human Relations in Safety Management  
SAFE 623 Advanced Safety Administration  
SAFE 630 Pollution Control  
SAFE 773 Disaster Preparedness  
SAFE 795 Thesis Supervision (6 credit hours)

Electives (a maximum of 2) outside of the department may be taken with prior approval from the Graduate Program coordinator. The course description can be found in Appendix B of this handbook.

#### Thesis Option

Students planning to pursue an advanced degree beyond a MS degree should consider taking the thesis route. Students can use 6 hours of thesis supervision towards their electives in the program. The procedures, registration policies and various deadlines for pursuing a thesis can be found on the Graduate School website at: <http://www.iup.edu/graduatestudies/catalog/university-policies/academic-policies/continuous-graduate-registration-for-dissertation-and-thesis/> . The decision to write a thesis should be made early in a student's program of study. Students should consult the Graduate School's Thesis/Dissertation Manual for details and requirements. The manual can be found at <http://www.iup.edu/thesismanual/default.aspx> Master's degree students in Safety Sciences are required to formally defend their theses .

#### Degree Requirements Residency Requirements:

Master's degree candidates have no formal residency requirements, but all credits applied toward the degree (except a possible transfer of credits as defined in the section titled "Transfer Credits") must be taken through IUP. In addition, all candidates must complete their program's final six credits of graduate work in courses offered by IUP. (The equivalent of two academic years of full-time study is required to meet requirements for graduation from the Student Affairs in Higher Education [SAHE] program).

#### Transfer Credits:

A student may transfer graduate credits from another institution, with Department approval, up to one-third (1/3) of the required credits for the graduate student's program at IUP. To request transfer credits, the student must complete the Request for Graduate Transfer Credit Review Form and follow the instructions listed on the form. A catalog course description or course syllabus must accompany the request. An official graduate transcript showing the earned credits must be provided by the school at which the credits were taken. The request is reviewed in the School of Graduate Studies and Research and the academic department. After review, the student's department and the student are notified of the transfer decision. Refer to the Transfer Credit Policy located at <http://www.iup.edu/graduatestudies/catalog/universitypolicies/academic-policies/transfer-credit-policy/> . It is strongly recommended that students seeking to transfer credits from another institution while enrolled at IUP receive advance written authorization for credit acceptance from the School of Graduate Studies and Research and the academic department prior to enrolling in that course. If credits

earned at another institution are approved for transfer, only the credit, not the grade or accompanying quality points, will appear on the student's IUP transcript. Credits earned at IUP that are approved for transfer to a second program will not be posted to the transcript a second time.

**Final Credits Policy:**

All degree candidates must complete their program's final six credits of graduate work in courses offered by IUP. Under unique circumstances, appropriate substitutions may be authorized by petitioning the dean of the School of Graduate Studies and Research after obtaining departmental approval.

**Evaluation of Students**

For information regarding School of Graduate Studies and Research policies on grading, view the Graduate Catalog: [www.iup.edu/gradcatalog](http://www.iup.edu/gradcatalog)

**Comprehensive/Candidacy Examinations**

The Master of Science in Safety Sciences program does not require comprehensive/candidacy/qualifier examinations.

**Degree Completion**

Applications for graduation are listed at the following site:

<http://www.iup.edu/commencement/graduate/how-to-apply-for-graduation/> . It is imperative to apply for graduation by the deadlines listed on the webpage. The student will not be approved for graduation if any deficiency coursework is not complete. In addition, it is also important to read through and understand commencement participation requirements.

For more information, view the Graduate Catalog: [www.iup.edu/gradcatalog](http://www.iup.edu/gradcatalog)

**Thesis and/or Dissertation Completion**

Students have the option to pursue a Thesis in place of two SAFE elective courses. Students that pursue a thesis will be required to adhere to the strict guidelines outlined in the IUP thesis-dissertation manual located at: <http://www.iup.edu/graduatestudies/resources-for-current-students/research/thesisdissertation-manual/> . At a minimum, students are required to complete CITI ethics in research training, identify a thesis committee, complete a Research Topic Approval form (RTAF), successfully conduct a proposal thesis defense, and obtain a formal IRB approval letter prior to beginning research. The CITI training can be accessed at <http://www.iup.edu/irb/irb-training/> .

**Evaluation Outcome for Dissertation and/or Thesis**

**Thesis Defense Department Protocol:**

The thesis proposal defense shall be attended by all committee members. The proposal defense will be an oral presentation and closed to the Safety Sciences department. Students will be notified of the outcome of the proposal defense at conclusion of the defense and after a brief meeting among committee members. The potential outcomes are pass or revise and resubmit.

**Effective fall 2017 for students admitted and students admitted after** -- Dissertation and thesis credits will be assigned Pass or Fail as the final evaluation outcome for the taken credits and carry no quality points weighted towards a student's CGPA.

**Ongoing Dissertation and Thesis students admitted "prior" to fall 2017** – Dissertation and thesis credits will be assigned a letter grade as the final evaluation outcome for the credits taken and carry quality points weighted towards a student's CGPA for the number of dissertation credits required for the program. "Extended" dissertation credits are not calculated into a student's CGPA.

For more information, view the view the Graduate Catalog: [www.iup.edu/gradcatalog](http://www.iup.edu/gradcatalog)

### **University Policies and Procedures**

**University policy is the baseline policy.** Programs may have policy that is more stringent than the University baseline policy; however, not less stringent than the University baseline policy. For questions regarding this statement, please contact [Program Coordinator] or the School of Graduate Studies and Research.

#### **Academic Calendar**

View the IUP Academic Calendar: [www.iup.edu/news-events/calendar/academic/](http://www.iup.edu/news-events/calendar/academic/)

The following University and SGSR policies can be found at [www.iup.edu/gradcatalog](http://www.iup.edu/gradcatalog)

#### **Academic Good Standing**

[www.iup.edu/gradcatalog](http://www.iup.edu/gradcatalog)

#### **Academic Integrity**

[www.iup.edu/gradcatalog](http://www.iup.edu/gradcatalog)

*The Source: A Student Policy Guide:* [www.iup.edu/studentconduct/thesource/](http://www.iup.edu/studentconduct/thesource/)

#### **Bereavement-Related Class Absences**

[www.iup.edu/gradcatalog](http://www.iup.edu/gradcatalog)

#### **Continuous Graduate Registration for Dissertation and Thesis**

[www.iup.edu/gradcatalog](http://www.iup.edu/gradcatalog)

#### **Grade Appeal Policy**

[www.iup.edu/gradcatalog](http://www.iup.edu/gradcatalog)

#### **Graduate Fresh Start Policy**

[www.iup.edu/gradcatalog](http://www.iup.edu/gradcatalog)

#### **Graduate Residency Requirement**

[www.iup.edu/gradcatalog](http://www.iup.edu/gradcatalog)

**Leave of Absence Policy**

[www.iup.edu/gradcatalog](http://www.iup.edu/gradcatalog)

**Time Limitations**

[www.iup.edu/gradcatalog](http://www.iup.edu/gradcatalog)

**Time-to-Degree Masters/Doctoral Dismissal Appeal Policy**

[www.iup.edu/gradcatalog](http://www.iup.edu/gradcatalog)

**Time-to-Degree Extension for Master's Thesis and Doctoral Dissertation**

[www.iup.edu/gradcatalog](http://www.iup.edu/gradcatalog)

**Transfer of Credits Policy**

[www.iup.edu/gradcatalog](http://www.iup.edu/gradcatalog)

**Research**

**Online Course Technical Support:** The Master of Science in Safety Sciences program delivers all courses online. Technical support for online courses and computer requirements is provided through the University IT Support Center. Details can be found here:

<http://www.iup.edu/itsupportcenter/default.aspx>.

When a student registers for an online course, they will be provided with a course day and time. The day and time are the chat session in which all students in the course and the professor log into the online course system. Attendance in the chat sessions is mandatory and part of the course grade.

**Resources:** The Stapleton Library contains hundreds of books, electronic resources, safety journals and other related course materials. As an IUP student, you can order books from other libraries, access course materials for your class on E-reserve and search electronic data bases. For more information on these resources, visit the library on-line at <http://www.iup.edu/library> or contact 724-357-2330. Librarians are available to help with becoming familiar with resources and to assist with research. If IUP does not own the books or other material needed for research, a variety of access points are available for obtaining these at no cost to users. Additional information can be found here: [www.iup.edu/research/](http://www.iup.edu/research/)

The IT Support Center is located at Suite G35, Delaney Hall, 950 Grant Street. They can be reached at 724-357-4000 or [it-support-center@iup.edu](mailto:it-support-center@iup.edu). The IT Support Center can provide assistance with email, passwords, networking, software resources, and other technology related topics.

**Buying Textbooks:** Buying Your Books Textbooks may be purchased at the Co-op Store on the lower level of the Hadley Union Building (HUB) or by calling 1-800-537-7916. Books may also be ordered on-line. Look for it on the Bookstore web site at [www.iupstore.com](http://www.iupstore.com)

**I-Card:** Every IUP student is issued an I-Card at the HUB I-Card Office. As an IUP student, you can use your I-Card for free bus pass, library access, HUB Rec Center, Coop store purchases, snack and soda machines, photo copying, computer lab printouts, entrance to campus events.

**Career Development Center:** The Career Development Center, 302 Pratt Hall, is open to all IUP graduate students and alumni. Resources are available to assist students with their personal career plans, including resume-writing, interviewing skills, and job-hunting techniques. Individual appointments with career counselors are recommended.

**Services for Students with Disabilities:** Disability Support Services (a unit of the Advising and Testing Center) is the primary agent for the provision of access for IUP students with documented physical, learning, or other disabilities. Students with disabilities are urged to register with the office. Services provided include, but are not limited to: early registration, equipment, test proctoring and reading, note taking, recording of books, NCR paper, liaison with faculty, OVR and BVS, and general advising and counseling. Further information may be obtained in 106 Pratt Hall.

For more information regarding student rights and responsibilities, view the Graduate Catalog:

[www.iup.edu/gradcatalog](http://www.iup.edu/gradcatalog)

## Appendices



**Appendix A: Deficiency Clearance Procedures**  
**Indiana University of Pennsylvania - Department of Safety Sciences**  
**Deficiency Clearance Procedures**

This document lists the possible deficiency areas graduate students may have upon entering the Master of Science in Safety Sciences degree program and methods to clear them. Graduate students should refer to their correspondence from the Department identifying their specific deficiency areas. The method selected to clear a deficiency must be approved by the Graduate Program coordinator.

**Math and Science:** Students must be able to demonstrate competency in math, chemistry, and physics. This can be addressed through any one of the following:

Undergraduate course in college algebra (MATH 105). This course must be successfully completed with a C or better prior to taking courses SAFE 605 and 660. An equivalent community college course may be used.

Undergraduate course in college chemistry with lab (CHEM 101). This course must be successfully completed with a C or better prior to taking course SAFE 660. An equivalent community college course may be used.

Undergraduate course in college physics with lab (PHY111/121). This course must be successfully completed with a C or better prior to taking course SAFE 605. An equivalent community college course may be used.

Achievement of the Certified Safety Professional designation.

**General Industry or Construction:** Students must be able to demonstrate a fundamental knowledge of either general industry or construction. This must be successfully completed prior to graduation.

This can be accomplished through:

Completion of an OSHA 30-hr card in either general industry or construction.

## Appendix B: Graduate Course Descriptions

SAFE 520/\* Law and Ethics in the Safety Profession 3 cr.

Examines ethical and legal issues faced by practicing safety professionals. Students identify and evaluate these issues in terms of their own value system, as well as legal and prudent practice within the safety, health, and environmental profession. Case studies and anecdotal presentations are used to examine common issues and to prepare the students for their potential roles as expert witnesses in various forms of litigation. Specific reference is made to participation of the safety professional in workers' compensation cases, Occupational Safety and Health Review Commission hearings, class action suits, and trials by jury. Prerequisite: Permission of the instructor.

SAFE 541/\* Accident Investigation 3 cr.

Focuses on the various aspects of accident investigation such as recent theories associated with accident causes, investigative techniques, data acquisition, structure of investigative reports, management responsibilities, and remedial actions. Emphasizes determining sequence of events to develop management actions which will prevent recurrence of accidents. Prerequisite: Permission of instructor.

SAFE 542/\* Current Issues in Safety 3 cr.

Examines the emerging issues currently faced by the safety, health, and environmental (SH&E) practitioner that extend beyond the conventional areas of academic preparation. In addition to exploring certification, ethics, compliance issues, quality management, worldwide concerns, and other common issues, each student will research and present information on a specific item of current relevance in the safety profession. Prerequisites: SAFE 211 and SAFE 301 or permission of the instructor.

SAFE 543/\* Construction Safety 3 cr.

In-depth coverage of hazard recognition, evaluation, and control principles used for the variety of phases of construction. Information regarding the development of a construction safety program along with extensive coverage of federal standards related to the construction industry is also provided.

SAFE 561/\* Air Pollution 3 cr.

Focuses on the various major aspects of the air pollution problem. These include sources of pollution, evaluation and engineering control of pollutants, government regulations, atmospheric chemistry and dispersion, and human and nonhuman effects. Emphasizes information that is practical for the safety sciences and industrial health professionals. Prerequisites: CHEM 101 and 102 or equivalent and SAFE 301 or equivalent courses or permission of the instructor.

SAFE 562/\* Radiological Health 3 cr.

Studies of problems associated with ionizing radiation in the human environment. Emphasizes biological effects, radiation measurement, dose computational techniques, exposure control, and local and federal regulations. The study and use of various radiological instruments are included. Prerequisite: SAFE major or permission of instructor.

SAFE 565/\* Right-to-Know Legislation 3 cr.

Covers both the federal and selected state right-to-know laws and related legislation. The scope, application, and enforcement of the various laws, including specific legal and moral obligations, are discussed. Strategies are explored and developed to identify the means by which employers can gain compliance with regulatory requirements. Prerequisites: SAFE 301 and SAFE 311 or permission of the instructor.

SAFE 581 Special Topics 3 cr.

A dual-level elective offering in which the specific topic may vary from one term to the next. Prerequisite: Permission of the instructor.

SAFE 602 Research Methods in Safety Management 2 cr.

Prepares individuals for the conduct of research in safety and its numerous subspecialties. Research paradigms, experimental design, data sources and collection, and statistical methods are covered in detail. The emphasis throughout is on quantitative approaches likely to produce valid new knowledge in the discipline of safety management. Co-requisite: Concurrent enrollment in SAFE 791.

SAFE 603 Human Relations in Safety Management 3 cr.

Integrates various behavioral science theories into the practice of safety management. Areas covered are motivation, communications, managerial interactions, and controlling worker behavior as it relates to accident causation. Prerequisite: SAFE major or permission of instructor.

SAFE 604 Industrial Toxicology 3 cr.

Principles and techniques for evaluating toxicological properties of chemical substances are studied with emphasis on extrapolation of information to determine permissible exposure limits in the workplace. Acquaints students with requirements for operating an animal toxicology facility as well as means of obtaining relevant human experience data. Prerequisites: CHEM 101, CHEM 102, MATH 217, or permission of instructor.

SAFE 605 Application of Safety Engineering Principles 3 cr.

Prepares the student with a fundamental understanding of those hazards which can contribute to accidental injury and damage. These hazards are studied in an engineering context; their physical and chemical characteristics are studied in depth in order to make the appropriate hazard control measures better understood. Prerequisite: SAFE major or permission of instructor.

SAFE 606 Hazardous Materials Management 3 cr.

Examines the technical and management aspects of handling hazardous materials, including hazardous waste. Definitions and the procedures for determining hazard properties are reviewed. The student is introduced to the various regulations that pertain to hazardous materials. Responsibilities for creating/receiving, storing, handling/using, shipping, and ultimately disposing of hazardous materials are discussed in detail. Examination of current trends and future directions is included. Prerequisites: SAFE 311, CHEM 101, and CHEM 102 or permission of the instructor.

SAFE 610 Safety, Health, and Environmental Administration 3 cr.

Examines administrative concepts and principles regarding organizing and managing the functional areas of safety, health, and the environment within an organization. Students are introduced to management practices unique to SH&E programs as well as concepts related to organizational culture, labor relations, professional ethics, workers' compensation, and medical management.

SAFE 620 Safety Data Management 3 cr.

Covered are design of loss incident source documents and code dictionaries; procedures to collect accident cost and cause data; accident cause analysis; and data for management accountability and decision making. Prerequisite: SAFE 412 or permission of instructor.

SAFE 621 Programming Safe Behavior 3 cr.

Students learn to apply behavior principles to motivate safe behavior (SB) in the workplace. Included are Programming Safe Behavior, SB program funding proposals, employee performance analysis, safe behavior definitions, workplace motivations and incentives, and SB program design, implementation, and evaluation. Prerequisite: Permission of the instructor.

SAFE 623 Advanced Safety Administration 3 cr.

Analyzes the management structure for its procedures, organizations, policies, and departmental competencies as they relate to safety. Ways to audit and improve management's safety effectiveness are covered. Prerequisite: SAFE major or permission of instructor.

SAFE 624 Solving Safety Problems 3 cr.

Students are presented with common scenarios that safety professionals face while trying to advise management on ways to prevent accidents. Students use problem-solving skills and safety knowledge to deal effectively with and resolve safety management problems such as being assigned a safety responsibility that is clearly another manager's responsibility and having objections raised about one's proposed project plans. Prerequisite: SAFE 603 or permission of the instructor.

SAFE 625 Risk Strategies for the SH&E Professional 3 cr.

Provides the student with a thorough understanding of the fundamentals of risk management, including leading-edge risk identification, control, finance, and transfer recommendations. Addresses workers' compensation, product risk management, construction risk management and wrap-up programs, catastrophic risk management, quantitative methods, risk finance, and risk management technology.

SAFE 630 Pollution Control 3 cr.

Introduces students to both management and engineering strategies in the prevention and control of pollution to the environment from industrial activities. Includes a brief history of pollution, legal aspects of prevention and control, the management of major types of industrial wastes, and the control of releases into both water and air.

SAFE 644 Preventing Unsafe Acts 3 cr.

Accident cause analysis narrowed to behavior analysis to determine motivation problems and behavior skill deficiencies with appropriate intervention techniques are covered. Cost/benefit analysis of accident costs versus training program benefits and OSHA training requirements are presented. Proposals for funding of training programs as well as writing behavioral objectives are covered. Course descriptions and course, unit, and lesson outlines as well as lesson plan development are presented. Lesson plan presentations and evaluation techniques are included.

SAFE 645 Principles of Occupational Safety 3 cr.

Provides the student with fundamental knowledge of the technical and managerial aspects of the safety and health function within an organization. The effects of loss incidents, accident causation, safety and health legislation, and safety program development are among the managerial aspects covered. The technical aspects of the course focus on the recognition, evaluation, and control of common safety, fire, and repetitive motion hazards in the workplace. Does not count toward degree requirements for the M.S. Degree in Safety Sciences.

SAFE 647 Applied Ergonomics 3 cr.

Ergonomic principles used in the identification, analysis, and implementation of intervention strategies to address hazards in the workplace are presented. Focus is on the application of strategies to identify and correct ergonomic problems in the workplace using evaluation equipment and video case studies of actual workplace situations. Prerequisite: SAFE major or permission of the instructor.

SAFE 660 Applied Industrial Hygiene 3 cr.

Examines the current expectations and responsibilities of professionals engaged in the practice of industrial hygiene. Students become familiar with 1) the current approaches to anticipating and identifying potential health hazards in the workplace and/or environment; 2) methods and techniques for determining quantitatively the amount of environmental stresses present; and 3) proper strategies and methods for implementing effective controls. Prerequisite: SAFE major or permission of the instructor.

SAFE 663 Industrial Hygiene Laboratory Methods 3 cr.

Laboratory methods germane to industrial hygiene sampling and analytical methods are studied in depth. Introduces a variety of laboratory procedures as well as biological monitoring. Sampling and analytical statistics are also emphasized. Prerequisites: SAFE 302 and SAFE 303 or permission of instructor.

SAFE 664 Industrial Noise Control 3 cr.

Provides an understanding of the physics of sound, functioning of the human hearing mechanism, instrumentation for measuring sound levels, and application of control strategies. Emphasis is placed on engineering controls, although administrative controls and use of personal protective equipment are discussed as well. Components of an overall continuing, effective hearing conservation program are reviewed in detail.

SAFE 667 Principles of Occupational Health 3 cr.

Provides comprehensive coverage of the industrial hygienist's responsibility for recognition, evaluation, and control of environmental stressors arising in or from the workplace. Students learn how to recognize and evaluate exposures to chemical, physical, and biological hazards. Emphasis is also placed on the identification of appropriate control strategies, including program development and evaluation. This course will not count toward meeting the degree requirements for the M.S. Degree in Safety Sciences.

SAFE 672 Process Safety in the Chemical Industries 3 cr.

Designed to cover all important aspects of loss prevention as it is practiced in the chemical process industries. Seeks to prepare the safety professional so that he/she may be able to work more effectively with chemists and chemical engineers in joint hazard identification, evaluation, and control projects. Prerequisite: SAFE 311 or equivalent or permission of instructor.

SAFE 701 Environmental Impact Analysis and Documentation 3cr.

Using an environmental impact statement as a model, this course is designed to provide the student with various regulatory, scientific, mathematical, and risk-based approaches and tools to conduct environmental impact assessments for industrial technologies by analyzing affected environments and by determining the significant environmental consequences of industrial technologies on various resources (e.g., water, land, human health, etc.). The student is also provided with information on how to generate reports/forms base on implementing regulatory and other requirements to document information from environmental/risk assessments and analyses.

Prerequisites: None

SAFE 773 Disaster Preparedness 3 cr.

Principles and techniques for preparing for various types of disasters. Students are acquainted with requirements necessary to develop workable plans for natural and industrial types of disasters. Loss prevention measures are discussed, directed toward preservation of organization resources.

SAFE 774 Fire Safety in Building Design 3 cr.

Examines fundamental principles for the safe design of buildings from a fire hazard standpoint. Emphasis is given to an understanding of building codes, fire properties of building materials, building design criteria to limit the spread of fire and smoke, control of ignition sources, storage of combustibles and flammables, life safety, and active fire protection systems. Prerequisite: SAFE major or permission of instructor.

SAFE 791, Capstone Project in Safety Sciences (1 cr)

Students will be required to complete a comprehensive project based on the cumulative knowledge and skills acquired in the program course work. Co-requisite: Concurrent registration in SAFE 602

SAFE 681 Special Topics 3 cr.

A graduate-student-only elective offering in which the specific topics may vary from one term to the next.

Prerequisite: Permission of instructor.

SAFE 699 Independent Study 3 cr.

Study in depth of a topic not available through other course work. Student works with supervising faculty member on carefully planned, student-initiated project. Prior approval is necessary. Prerequisite: Permission of instructor.

**Appendix C:**

**Signature Page**

My signature below indicates that I am responsible for reading and understanding the information provided and referenced in this department/program student handbook.

\_\_\_\_\_ [please initial] I understand my program coordinator may share this document with the School of Graduate Studies and Research.

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**Submit to department secretary, Jolene Campbell  
jolenec@iup.edu by start of the semester.**

**The Safety Sciences department will keep this signed document on file.**