

SAFETY, M.S.

Areas of Emphasis

Mine Safety

Occupational Safety and Health

Minor in Safety

Program Description

No human endeavor or undertaking can be done without involving the field of safety technology. Safety professionals work in a variety of situations alongside management to ensure the health and safety of all employees. The graduate curriculum in Safety offers two areas of emphasis: Mine Safety and Occupational Safety and Health. The Master of Science degree has a 36 semester credit-hour (CR) requirement (18 CR of the 36CR should be with courses at the 600-level).

Admission Requirements

Applicants should follow the admissions process described in this catalog or at the Graduate Admissions website at www.marshall.edu/graduate/admissions/how-to-apply-for-admission.

In addition:

Each applicant for admission must have an undergraduate degree from an accredited college or university, and must satisfy at least ONE of the following criteria:

- Score at the mean or above on the verbal GRE
- Score at the mean or above on the quantitative GRE
- Score at the mean or above on the analytical GRE
- Score at the mean or above on the Miller Analogies Test
- Have an undergraduate GPA of 2.50 or above
- Have passed the Fundamentals of Engineering exam and/or the Professional Engineering exam In addition to the general requirements all students

entering the graduate Safety program must have completed prior to admission the following courses OR their equivalent:

- For the Area of Emphasis in Occupational Safety and Health: MTH 130, PHY 101 and 101L, and CHM 203

Degree Requirements

Area of Emphasis in Occupational Safety and Health

Core Courses

- SFT 599 Occupational Safety Program Management
- SFT 610 Philosophical and Psychological Concept
- SFT 630 Current Literature and Research in Occupational Safety

Required Courses

- SFT 540 Industrial Fire Protection
- SFT 554 Industrial Hygiene I
- SFT 597 Occupational Safety Program Development
- SFT 645 Safety Engineering & Equipment Design
- SFT 660 Human Factors in Accident Prevention (OR)
- SFT 560 Fundamentals of Ergonomics
- SFT 647L Industrial Hygiene Lab

Students may choose to complete either the project option, or thesis option after consultation with their academic advisor.

Thesis Option: The thesis option involves completion of 6CR of research (SFT681) under the direction of an advisor. The student must prepare a formal thesis proposal (including a statement of work, extensive literature search, and proposed timeline) in consultation with his or her advisor and present the proposal to the graduate thesis committee, which is formed in consultation with the advisor. The thesis proposal must be defended and approved by the thesis committee prior to the final semester of study (typically completed during first semester of SFT681). Students must then summarize their research work in the form of a formal, written thesis and successfully defend it before their thesis committee in order to fulfill the requirements for the degree (typically completed during second semester of SFT681). Thesis work is typically conducted over two semesters.

Project option: The project option involves completion of 3CR from any 600-level safety-related elective courses and completion of 3CR of comprehensive project (SFT679). The comprehensive project involves the application of coursework completed as part of the degree to a practical problem. Students will work with their advisors to identify an appropriate project and scope. Students must prepare a formal written report and deliver an oral presentation to a committee. Students register for SFT679 (3 CR) during the semester in which their project will be completed and presented, but preliminary work on the project may

commence before that semester.

Area of Emphasis in Mine Safety

The Mine Safety graduate program is offered in cooperation with the National Mine Safety and Health Academy (MSHA), Beckley, WV. The program is designed for underground and surface mining and is applicable to all aspects of the metallic and non-metallic mining industry. Typically students are MSHA employees and have five or more years of experience in the mining industry; a technical background is required. A limited number of non-MSHA employees are permitted into the program; preference will be given to those with mining experience. The Division Chair of Applied Science Technology grants permission for admission to this area of emphasis. Only students admitted to Mine Safety will be eligible to take courses. Please contact the Division Chair for further information prior to applying for admission to this program.

Minor in Safety

Graduate students from other majors may obtain a graduate Minor in Safety by completing any three Safety Technology courses at the 500-level or 600-level for a total of nine hours of graduate work, with written permission in advance from the student's academic advisor and the Department Chair prior to the student taking the courses.