Safety Management

Degree Offered:

• Masters of Science, Safety Management (M.S.)

MASTERS OF SCIENCE, SAFETY MANAGEMENT

The mission of the safety management program is to prepare program graduates to meet the safety mission of any enterprise. This is stated simply as: The safety mission of an organization is to protect, conserve, and improve the resources—people, property, and efficacy—of the organization. The Master's of Science with a major in Safety Management is accredited by the Applied Science Accreditation Commission of ABET, http://www.abet.org.

PROGRAM EDUCATIONAL OBJECTIVES

Drawing from the university's mission, the program mission, the needs of our constituents, and the Applied Science Accreditation Commission Criteria of ABET, the following educational objectives were developed for the Masters of Science program in Safety Management:

A graduate of the Safety Management program will be able to:

1. Communicate effectively, orally and in writing, including the transmission of safety data to management and employees.
2. Demonstrate knowledge and skills in the area of safety management.
3. Demonstrate knowledge of ethical and professional responsibilities and knowledge of applicable legislation and regulations.
4. Demonstrate the ability to apply various research activities through the decision-making process used in safety management.

STUDENT OUTCOMES

In order to meet Program Educational Objectives of the Safety Management program, students must be able to meet the following outcomes at the time of their graduation:

1. Demonstrate knowledge and skills to build a comprehensive Safety and Health program based on loss control and regulations
2. Demonstrate knowledge and skills to use analytical techniques in the Safety and Health function
3. Demonstrate knowledge and skills with federal, state, and non-governmental Safety and Health program standards and best practices
4. Demonstrate skills in written and oral communications at the level of professionals in safety and health positions
5. Demonstrate knowledge and skills in writing and evaluating safety and health research proposals
6. Demonstrate knowledge and skills in using management tools to implement and evaluate Safety and Health programs

For admission into the M.S. Safety Management Program, applicants must meet department admission standards and ABET/ASAC prerequisite course requirements, which are currently a minimum of sixty-three credit hours of approved science, mathematics, and other technical courses. Of these, at least fifteen credit hours must be junior or senior level. In addition, students must have a minimum of twenty-one hours of social sciences, humanities, and/or communications. On an individual basis, the faculty may identify additional prerequisite coursework. Applicants will be advised about their specific requirements at the time of admission. Applicants not meeting all of the listed requirements may be considered for admission as provisional students.

Curriculum in Masters of Science – Safety Management

A candidate for the M.S. degree with a major in safety management must comply with the rules and regulations as outlined in the WVU Graduate Catalog and the specific requirements of the Statler College and the Industrial and Management Systems Engineering Department.

Program Requirements

All M.S. degree candidates are required to perform research (thesis or problem report option) and follow a planned program of study. The student’s faculty advisor, in conjunction with the student’s Advising and Examining Committee (AEC) will be responsible for determining the plan of study appropriate to the student’s needs. The underlying principle of the planned program is to provide the students with the necessary support to complete their degree and prepare them for their career.

Students who do not hold a baccalaureate degree in safety management may be required to take a set of undergraduate courses above and beyond the minimum coursework requirements.

Curriculum Requirements

A minimum cumulative GPA of 3.0 is required in all courses

Course Requirements

A minimum of 60% of courses must be from 500 level or above

SAFM 501 Safety Management Integration
SAFM 502  Controlling Environmental and Personnel Hazards  3
SAFM 505  Safety Legislation and Compliance  3
SAFM 528  Economic Aspects of Safety  3
SAFM 534  Fire Safety Management  3
SAFM 550  Loss Control and Recovery  3
SAFM 552  Safety and Health Training  3
SAFM 640  Instrumentation for Safety Managers  3
SAFM 689  Professional Field Experience  3

**Electives**

Select three from the following:  9

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAFM 470</td>
<td>Managing Construction Safety</td>
</tr>
<tr>
<td>SAFM 471</td>
<td>Motor Fleet Safety</td>
</tr>
<tr>
<td>SAFM 533</td>
<td>Disaster Preparedness</td>
</tr>
<tr>
<td>SAFM 539</td>
<td>Security Management</td>
</tr>
<tr>
<td>SAFM 580</td>
<td>Fundamentals of Environmental Management</td>
</tr>
<tr>
<td>IH&amp;S 527</td>
<td>Noise Measurement and Control</td>
</tr>
<tr>
<td>IH&amp;S 528</td>
<td>Industrial Ventilation Design</td>
</tr>
<tr>
<td>IH&amp;S 725</td>
<td>Industrial Hygiene Sampling and Analysis</td>
</tr>
<tr>
<td>IENG 461</td>
<td>System Safety Engineering</td>
</tr>
<tr>
<td>IENG 561</td>
<td>Industrial Hygiene Engineering</td>
</tr>
<tr>
<td>IENG 564</td>
<td>Industrial Ergonomics</td>
</tr>
<tr>
<td>IENG 660</td>
<td>Human Factors System Design</td>
</tr>
<tr>
<td>IENG 662</td>
<td>Systems Safety Engineering</td>
</tr>
<tr>
<td>ENVP 515</td>
<td>Hazardous Waste Training</td>
</tr>
<tr>
<td>ENVP 555</td>
<td>Environmental Sampling and Analysis</td>
</tr>
<tr>
<td>MINE 471</td>
<td>Mine and Safety Management</td>
</tr>
<tr>
<td>RESM 480</td>
<td>Environmental Regulation</td>
</tr>
<tr>
<td>OEHS 601</td>
<td>Environmental Health</td>
</tr>
<tr>
<td>OEHS 620</td>
<td>Occupational and Environmental Hazard Assessment</td>
</tr>
<tr>
<td>OEHS 622</td>
<td>Public Health Toxicology</td>
</tr>
<tr>
<td>OEHS 623</td>
<td>Occupational Injury Prevention</td>
</tr>
<tr>
<td>OEHS 630</td>
<td>Public Health Biology</td>
</tr>
<tr>
<td>OEHS 665</td>
<td>Worksite Evaluation</td>
</tr>
<tr>
<td>SBHS 601</td>
<td>Social and Behavioral Theory</td>
</tr>
<tr>
<td>FIN 455</td>
<td>Risk Management</td>
</tr>
<tr>
<td>CHPR 614</td>
<td>Injury Prevention and Control</td>
</tr>
</tbody>
</table>

Any IH, IENG, OEHS, EDIP, SAFM, SHBS, or PUBH courses 400-799

Choose 1 of the following options:  3-6

**Thesis Option - 6 hours**

- SAFM 697  Research (6 hours)
- Written Research Proposal
- Thesis
- Final Oral or Written Examination

**Problem Report Option - 3 hours**

- SAFM 697  Research (3 hours)
- Written Research Proposal
- Formal written report or professional report/paper
- Final Oral or Written Examination

**Coursework Option**

- Final Oral or Written Examination

Total Hours  36
Students who do not hold a baccalaureate degree in safety management may be required to take a set of undergraduate courses above and beyond the minimum coursework requirements.

** Students who have SHE work experience have the possibility to waive SAFM 689 and take an additional elective, please see your advisor for approval.

*** Credit hours may vary depending on option selected. The coursework option requires 36 hours.

Final Examination

M.S. students following the thesis or problem report option must prepare a written research proposal. The proposal must be approved by the student’s AEC at least one semester prior to the final oral examination.

All students, regardless of option, are required to pass a final oral or written examination, administered by their AEC, covering the thesis or problem report and/or related course material.

Suggested Plan of Study

The plan below illustrates the Coursework Option. It is important for students to take courses in the order specified as much as possible; all prerequisites and concurrent requirements must be observed. A typical M.S. degree program that completes degree requirements in one and half years is as follows.

<table>
<thead>
<tr>
<th>First Year</th>
<th>Fall</th>
<th>Hours</th>
<th>Spring</th>
<th>Hours</th>
<th>Summer</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAFM 501</td>
<td>3</td>
<td>SAFM 528</td>
<td>3</td>
<td>SAFM 689</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SAFM 502</td>
<td>3</td>
<td>SAFM 640</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SAFM 505</td>
<td>3</td>
<td>SAFM 550</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td>Elective</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>12</td>
<td></td>
<td>12</td>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Year</th>
<th>Fall</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAFM 552</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>SAFM 534</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

Total credit hours: 36

Major Learning Goals

SAFETY MANAGEMENT

1. Demonstrate knowledge and skills to build a comprehensive Safety and Health program based on loss control and regulations
2. Demonstrate knowledge and skills to use analytical techniques in the Safety and Health function
3. Demonstrate knowledge and skills with federal, state, and non-governmental Safety and Health program standards and best practices
4. Demonstrate skills in written and oral communications at the level of professionals in safety and health positions
5. Demonstrate knowledge and skills in writing and evaluating safety and health research proposals
6. Demonstrate knowledge and skills in using management tools to implement and evaluate Safety and Health programs