Engineering Technology: Fire Safety and Explosion Protection, MS

Requirements for Students Matriculating in or before Academic Year 2021-2022. Learn more about Graduate College Academic Regulation 7.0 (http://catalog.okstate.edu/graduate-college/#70).

### Thesis Option

**Total Hours:** 30

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<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tr>
<td>FEMP 5013</td>
<td>Research Design &amp; Methodology</td>
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<td>FSEP 5133</td>
<td>Principles of Industrial and Process Safety</td>
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**Fire Safety and Explosion Protection Core Courses**

- FSEP 5033 Risk Analysis 3
- FSEP 5113 Fire and Explosion Hazard Recognition 3
- FSEP 5143 Structural Design for Fire and Life Safety 3

**Hours Subtotal:** 18

**Electives**

Select 6 hours, minimum of 3 hours from FSEP courses:

- FSEP 5060 Emerging Topics in Engineering Technology 6
- FSEP 5123 Advanced Special Hazard Suppression and Detection
- FSEP 5153 Advanced Exposure Assessment
- FSEP 5163 Building Electrical Systems
- FSEP 5213 Advanced Building Design and Analysis
- FSEP 5383 Fire and Evacuation Modeling
- FSEP 5990 Directed Studies
- ETM 5153 Foundations of Engineering Management
- ETM 5221 Engineering Teaming
- ETM 5291 Failure Mode and Effects Analysis in Design
- ETM 5341 Leadership Strategies for Technical Professionals
- ETM 5371 Ethics for Practicing Engineers
- ETM 5411 Engineering Economic Analysis
- IEM 5143 Reliability and Maintainability
- IEM 5990 Special Topics in Industrial Engineering and Management
- ENGR 5133 Advanced Environmental Law for Technical Professionals
- FEMP 5113 Introduction to Fire Administration
- FEMP 5123 Introduction to Emergency Management
- FRNS 5123 Fire Dynamics in Forensic Investigations
- FRNS 5143 Methods in Fire and Explosion Investigation NFPA 921/1033
- FRNS 5183 Computer Fire Modeling

**Master’s Thesis**

- FSEP 5000 Master’s Thesis 6

Each M.S. candidate must prepare a written thesis and defend it before a thesis committee of at least three faculty members (minimum two from the FPST program). The written document must satisfy the requirements of the Graduate College for format and structure. The thesis defense consists of a twenty-minute oral presentation, followed by questions from the committee.

**Total Hours:** 30

### Non-Thesis Option

**Total Hours:** 32

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**Fire Safety and Explosion Protection Core Courses**

- FSEP 5033 Risk Analysis 3
- FSEP 5113 Fire and Explosion Hazard Recognition 3
- FSEP 5143 Structural Design for Fire and Life Safety 3

**Hours Subtotal:** 18

**Electives**

Select 12 hours, minimum of 3 hours from FSEP courses:

- FSEP 5060 Emerging Topics in Engineering Technology 6
- FSEP 5123 Advanced Special Hazard Suppression and Detection
- FSEP 5153 Advanced Exposure Assessment
- FSEP 5163 Building Electrical Systems
- FSEP 5213 Advanced Building Design and Analysis
- FSEP 5383 Fire and Evacuation Modeling
- FSEP 5990 Directed Studies
- ETM 5153 Foundations of Engineering Management
- ETM 5221 Engineering Teaming
- ETM 5291 Failure Mode and Effects Analysis in Design
- ETM 5341 Leadership Strategies for Technical Professionals
- ETM 5371 Ethics for Practicing Engineers
- ETM 5411 Engineering Economic Analysis
- IEM 5143 Reliability and Maintainability
- IEM 5990 Special Topics in Industrial Engineering and Management
- ENGR 5133 Advanced Environmental Law for Technical Professionals
- FEMP 5113 Introduction to Fire Administration
- FEMP 5123 Introduction to Emergency Management
- FRNS 5123 Fire Dynamics in Forensic Investigations

**Hours Subtotal:** 18

**Other FRNS Approved by Advisor**

- FRNS 5123 Fire Dynamics in Forensic Investigations 6
FRNS 5143  Methods in Fire and Explosion Investigation NFPA 921/1033
FRNS 5183  Computer Fire Modeling
Other FRNS approved by advisor

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Creative Component/Report

FSEP 5990  Directed Studies

The FSEP 5990 course is used for a creative component. A report (a “mini-thesis”) must be submitted, prepared in the style of an M.S. thesis, but not submitted for Graduate College approval.

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Total Hours 32

**Graduate College Master’s Program Requirements**

Learn more about Graduate College 2021-2022 Master’s Degree Program Requirements (http://catalog.okstate.edu/graduate-college/). Check the General Graduate College academic regulations for minimal GPA, language proficiency and other general requirements.