# ENGINEERING TECHNOLOGY: FIRE SAFETY AND EXPLOSION PROTECTION, MS

Requirements for Students Matriculating in or before Academic Year 2019-2020. Learn more about Graduate College Academic Regulation 7.0 (http://catalog.okstate.edu/graduate-college).

## Thesis Option

Total Hours: 30 Hours

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>Core Courses</td>
<td></td>
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</tr>
<tr>
<td>POLS 5013</td>
<td>Quantitative Methods</td>
<td>3</td>
</tr>
<tr>
<td>or GENT 5013</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IEM 5603</td>
<td>Project Management</td>
<td>3</td>
</tr>
<tr>
<td>or GENT 5023</td>
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<tr>
<td>GENT 5033</td>
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<td>3</td>
</tr>
<tr>
<td>FSEP 5113</td>
<td>Fire and Explosion Hazard Recognition</td>
<td>3</td>
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<tr>
<td>FSEP 5133</td>
<td>Principles of Process Safety</td>
<td>3</td>
</tr>
<tr>
<td>FSEP 5143</td>
<td>Structural Design for Fire and Life Safety</td>
<td>3</td>
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<tr>
<td><strong>Hours Subtotal</strong></td>
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**Electives**

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

- FSEP 5123 Fire and Explosion Detection and Mitigation
- FSEP 5153 Critical Infrastructure Vulnerability and Risk
- FSEP 5163 Principles of Industrial, Physical and Building Security
- FSEP 5990 Special Topics
- FPST 4143 Industrial Ventilation and Smoke Control
- FPST 4383 Fire and Evacuation Modeling
- 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
- POLS 5303 Fire Dynamics in Forensic Investigations
- FRNS 5123 Methods in Fire and Explosion Investigation NFPA 921/1033
- FRNS 5163 Advanced Fire Dynamics
- FRNS 5173 Advanced Explosion Investigation
- FRNS 5183 Computer Fire Modeling

**Hours Subtotal** 6

## Non-Thesis Option

Total Hours: 32 Hours

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<td><strong>Hours Subtotal</strong></td>
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**Electives**

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

- FSEP 5123 Fire and Explosion Detection and Mitigation
- FSEP 5153 Critical Infrastructure Vulnerability and Risk
- FSEP 5163 Principles of Industrial, Physical and Building Security
- FSEP 5990 Special Topics
- FPST 4143 Industrial Ventilation and Smoke Control
- FPST 4383 Fire and Evacuation Modeling
- 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
- POLS 5303 Fire Dynamics in Forensic Investigations
- FRNS 5123 Methods in Fire and Explosion Investigation NFPA 921/1033
- FRNS 5163 Advanced Fire Dynamics
- FRNS 5173 Advanced Explosion Investigation
- FRNS 5183 Computer Fire Modeling

**Hours Subtotal** 6
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.

General Graduate College Requirements
- A minimum Grade-Point-Average of 3.00 is required
- A minimum Grade of "C" is required in all degree applicable courses
- No courses utilizing the Pass-No Pass grading system are permitted
- GRAD 5082 or GRAD 5092 may not be used to meet degree requirements

Additional Graduate College Masters Degree Requirements

Plan I (coursework with thesis)
- A minimum of 30 credit hours
  - A minimum of 24 coursework credit hours comprised of:
    - 6 research or creative component credit hours
    - 21 in-residence credit hours (maximum of 9 transfer hours with "B" or better)
    - 21 credit hours at 5000- or 6000-level

Plan II (coursework without thesis)
- A minimum of 32 credit hours
  - A maximum of 3 credit hours of research or creative component
  - A minimum of 23 in-residence credit hours (maximum of 9 transfer credit hours with "B" or better)
  - A minimum of 21 credit hours at the 5000- or 6000-level