# FIRE PROTECTION AND SAFETY ENGINEERING TECHNOLOGY, BSET

Program pending OSRHE approval for the 2020-2021 Academic Year

Requirements for Students Matriculating in or before Academic Year 2020-2021. Learn more about University Academic Regulation 3.1 (http://catalog.okstate.edu/university-academic-regulations/#matriculation).

Minimum Overall Grade Point Average: 2.00  
Total Hours: 125

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## General Education Requirements

All General Education coursework requirements are satisfied upon completion of this degree plan.

### English Composition

See Academic Regulation 3.5 (http://catalog.okstate.edu/university-academic-regulations/#english-composition)

Select one of the following:

- **ENGL 1113** Composition I
- **ENGL 1123** International Freshman Composition I
- **ENGL 1313** Critical Analysis and Writing I
- **ENGL 3323** Technical Writing

### American History & Government

Select one of the following:

- **HIST 1103** Survey of American History
- **HIST 1483** American History to 1865 (H)
- **HIST 1493** American History Since 1865 (DH)
- **POLS 1113** American Government

### Analytical & Quantitative Thought (A)

- **MATH 2123** Calculus for Technology Programs I (A)  
  or **MATH 2144** Calculus I (A)
- **MATH 2133** Calculus for Technology Programs II (A)  
  or **MATH 2153** Calculus II (A)

### Humanities (H)

Courses designated (H)

### Natural Sciences (N)

Must include one Laboratory Science (L) course

- **PHYS 2014** University Physics I (LN)
- **PHYS 1214** College Physics II (LN)  
  or **PHYS 2114** University Physics II (LN)

Select one of the following:

- **CHEM 1414** General Chemistry for Engineers (LN)
- **CHEM 1314** Chemistry I (LN)
  & **CHEM 1515** and Chemistry II (LN)
- **CHEM 1215** Chemical Principles I (LN)  
  & **CHEM 1225** and Chemical Principles II (LN)

### Social & Behavioral Sciences (S)

Course designated (S)

## Additional General Education

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## College/Departmental Requirements

### Engineering

- **CET 2253** Printreading & BIM
- or **ENGR 1322** Engineering Design with CAD

### Engineering Science

- **ENSC 2113** Statics
  or **GENT 2323** Statics

Select one of the following:

- **ENSC 2213** Thermodynamics
- **MET 3433** Basic Thermodynamics
- **MET 3453** Heat Transfer (OR MET 4433 Heat Transfer)
- **ENGR 2400** Heat Transfer and Thermodynamics Lab

### Specialty

- **FPST 1213** Fire Safety Hazards Recognition
- **FPST 1373** Fire Suppression and Detection Systems
- **FPST 2023** Industrial and Occupational Safety
- **FPST 2243** Design and Analysis of Sprinkler Systems
- **FPST 2343** Elements of Industrial Hygiene
- **FPST 2483** Fluid Mechanics for Fire Protection

### Major Requirements

Select one of the following:

- **ENSC 2143** Strength of Materials
- **GENT 3323** Strength of Materials
- **ENSC 3313** Materials Science

Select one of the following:

- **STAT 2013** Elementary Statistics (A)
- **STAT 4013** Statistical Methods I (A)
- **STAT 4033** Engineering Statistics

Select one of the following:

- **STAT 3013** Intermediate Statistical Analysis
- **STAT 4023** Statistical Methods II
- **STAT 4043** Applied Regression Analysis
- **MATH 2233** Differential Equations
- **MATH 3013** Linear Algebra (A)
- **IEM 3503** Engineering Economic Analysis
  or **IEM 3513** Economic Decision Analysis
- **FPST 3013** Safety Management (S)
- **FPST 3143** Life Safety Analysis
- **FPST 3213** Human Factors in Accident Prevention
- **FPST 3373** Fire Dynamics
- **FPST 4143** Industrial Ventilation and Smoke Control
- **FPST 4333** System and Process Safety Analysis
- **FPST 4403** Hazardous Materials Incident Management
- **FPST 4683** Risk Control Engineering

## Hours Subtotal

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<tr>
<th>Courses designated (A) or (N)</th>
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<tr>
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<tr>
<td><strong>Diversity (D) &amp; International Dimension (I)</strong></td>
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<td>Select at least one Diversity (D) course</td>
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<td><strong>Engineering Science</strong></td>
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<td><strong>Specialty</strong></td>
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<td><strong>Major Requirements</strong></td>
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<td><strong>Hours Subtotal</strong></td>
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## Notes

1. Prinreading & BIM
2. May be completed in any part of the degree plan
3. Select at least one Diversity (D) course
4. Select at least one International Dimension (I) course
Select one of the Following  
- FPST 4994: Fire Protection and Safety Interdisciplinary Projects  

Select 6-7 hours of specialty electives of the following:  
- CET 4443: Construction Safety and Loss Control  
- FEMP 3103: Introduction to Emergency Management (S)  
- FEMP 3733: Emergency Management: Preparedness and Response  
- FEMP 3763: Emergency Management: Recovery and Mitigation  
- FPST and FSEP courses not used elsewhere.  
- FRNS 5143: Methods in Fire and Explosion Investigation NFPA 921/1033  
- ENGR 2400: Engineering Lab Topics  
- ENGR 2421: Engineering Data Acquisition Controls Lab  
- ENSC courses not used elsewhere (except ENSC 2213 if MET 3433 is used for Engineering Science Requirements)  
- MET 3433: Basic Thermodynamics (Cannot be used if ENSE 2213 is used for Engineering Science Requirements)  
- MET 3453: Heat Transfer (or MET 4433)  
- MGMT 3133: Developing Leadership Skills  

Hours Subtotal: 46  

Electives  
Select 9 hours of upper-division controlled electives of the following:  
- CET 4443: Construction Safety and Loss Control  
- FPST 3113: Advanced Special Hazard Suppression and Detection  
- FPST 3383: Building Electrical Systems  
- FPST 4213: Advanced Building Design and Analysis  
- FPST 4383: Fire and Evacuation Modeling  
- FPST 4233: Advanced Exposure Assessment  
- FRNS 5143: Methods in Fire and Explosion Investigation NFPA 921/1033  

Hours Subtotal: 9  

Total Hours: 125  

1 Students who take ENGR 1322 instead of CET 2253 will need to take an extra hour of related specialty  

Graduation Requirements  
1. A minimum technical GPA of 2.00 is required. The technical GPA is calculated from all courses counting in the curriculum with a prefix belonging to the degree program, or substitutions for the courses.  
2. A grade of ‘C’ or better is required in each course that is a prerequisite to a required course that has an engineering or engineering technology prefix. A Grade of ‘C’ of better is also required in FPST 4683, FPST 4992 and FPST 4994.  

Below are the courses that require a ‘C’ using the 2020-2021 catalog but the prerequisites are subject to change.  

Additional State/OSU Requirements  
- At least: 60 hours at a four-year institution; 30 hours completed at OSU; 15 of the final 30 or 50% of the upper-division hours in the major field completed at OSU.  
- Limit of: one-half of major course requirements as transfer work; one-fourth of hours earned by correspondence; 8 transfer correspondence hours.  
- Students will be held responsible for degree requirements in effect at the time of matriculation and any changes that are made, so long as these changes do not result in semester credit hours being added or do not delay graduation.  
- Degrees that follow this plan must be completed by the end of Summer 2026.