

# FIRE PROTECTION AND SAFETY ENGINEERING TECHNOLOGY, BACHELOR OF SCIENCE (B.S.)

## Program Educational Objectives

Within 3-5 years of graduation, graduates of the Fire Protection and Safety Engineering Technology Program will be able to:

1. Practice fire protection engineering regionally, nationally, and internationally in a broad range of modern professional settings.
2. Actively participate in the development of engineering decisions on societal, environmental, economical, and safety issues at the local or global levels.
3. Understand the need for lifelong learning and continued professional development.
4. Maintain continual professional competency and practice ethically.

## Program Requirements

CIP Code : 43.0201

### Summary Checklist for General Education

Code	Title	Hours
<b>Element 1</b>		
A:	Written Communication ( <a href="http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-1/">http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-1/</a> )	3
B:	Written Communication ( <a href="http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-1/">http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-1/</a> )	3
C:	Oral Communication ( <a href="http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-1/">http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-1/</a> )	3
<b>Element 2</b>		
	Quantitative Reasoning ( <a href="http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-2/">http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-2/</a> )	3
<b>Element 3</b>		
A:	Arts ( <a href="http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-3/">http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-3/</a> )	3
B:	Humanities ( <a href="http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-3/">http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-3/</a> )	3
<b>Element 4</b>		
	Natural Sciences ( <a href="http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-4/">http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-4/</a> )	6
<b>Element 5</b>		
A:	Historical Science ( <a href="http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-5/">http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-5/</a> )	3
B:	Social Behavioral Science ( <a href="http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-5/">http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-5/</a> )	3
<b>Element 6</b>		

Diversity of Perspectives Experiences ( <a href="http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-6/">http://catalogs.eku.edu/undergraduate/general-academic-information/general-education-requirements/element-6/</a> )	6
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**Total Hours** 36

Students are expected to complete Elements 1 and 2 within their first 60 hours of college credit.

## Major

The Department of Safety, Security, and Emergency Management requires that each graduate of Fire, Protection, and Safety Engineering Technology (B.S.) must complete a minimum of 32 credit hours in the College of Justice, Safety and Military Science at Eastern Kentucky University and must complete a minimum of 18 upper division credits from the Safety, Security and Emergency Management Department. (Accredited by the Engineering Technology Accreditation Commission of ABET, <http://www.abet.org>)

Code	Title	Hours
<b>University Graduation Requirements</b>		
General Education		36
Student Success Seminar		
JSO 100	Student Success Seminar (waived for transfers with 30+ hrs.)	1
Writing Intensive Course (Hrs. incorporated into Major/ Supporting/ Gen Ed/Free Electives category)		
Upper division courses (42 hrs. distributed throughout Major/ Supporting/Gen Ed/Free Electives categories)		
ACCT - Fire, Protection, and Safety Engineering Technology majors will fulfill ACCT with the following. (Credit hours are incorporated into major requirements below.)		
FSE 481	Fire Protection Design	
<b>Major Requirements</b>		
<i>Core Courses</i>		
FSE 101	Fire Prevention	3
FSE 120	Fire Behavior and Combustion	3
FSE 221	Fire Detection and Suppression Systems	3
FSE 224	Human Behavior In Fire	3
FSE 300W	Technical Report Writing for Emergency Services	3
FSE 305	Hazardous Materials	3
FSE 322	Water-Based Fire Protection Systems Design	3
FSE 349	Applied Learning in Fire and Safety Engineering	3
FSE 350	Fire Arson and Explosion Investigation	3
FSE 355	Fire Dynamics	3
FSE 360	Fire Protection Hydraulics and Water Supply	3
FSE 445	Advanced Structural Fire Protection	3
FSE 480	Industrial Fire Safety	3
FSE 481	Fire Protection Design	3
<i>Supporting Course Requirements</i>		
CHE 101	Introductory Chemistry (Element 4) <sup>G</sup>	3
CHE 101L	Introductory Chemistry Lab (Element 4) <sup>G</sup>	1
CHE 102 & 102L	Introductory Chemistry II and Introductory Chemistry Lab II	4
CON 303	Statics and Strength of Materials	3
CON 322	Construction Structural Design	3
MAT 234	Calculus I (Element 2) <sup>G</sup>	4
MAT 244	Calculus II	4

2 Fire Protection and Safety Engineering Technology, Bachelor of Science (B.S.)

PHY 201	University Physics I	5
PHY 202	University Physics II	5
PHY 375	Engineering Thermodynamics	3
AEM 195	Computer Aided Drafting	3
<i>Free Electives</i>		
Choose from 3 hours of free electives		3
<b>Total Hours</b>		<b>120</b>

**G**

Course also satisfies a General Education element. Hours are included within the 36 hr. General Education requirement above.