Program Emphasis

The fire protection and safety engineering technology (FPST) curriculum provides preparation for assessing and reducing the loss potential with respect to fire, safety, industrial hygiene, and hazardous material incidents. With respect to fire, reducing the loss potential might involve setting design criteria with a special emphasis on life safety or fire resistivity or specifying automatic detection or extinguishing systems. When considering safety, reducing accidents may require special protective equipment or clothing, or the redesign of machinery or processes. Reducing losses caused by environmental problems may require sampling air for contaminants, such as asbestos or toxic chemicals, or monitoring noise levels, and the development of procedures to address practical approaches to comply with state and federal regulations. Addressing the problems of handling and disposing of hazardous chemicals, such as spill control, is often required. Managing risk and compliance with federal laws and regulations relative to occupational safety and health and hazardous materials is an increasingly important job activity.

The fire protection and safety engineering technology program began at Oklahoma State University in 1937. The demand by business and industry for loss control specialists has resulted in the evolution of the program into one that now places emphasis on fire protection, safety, and occupational/environmental health. The FPST program prepares graduates for careers in loss control. The loss control profession is segmented into three major areas: loss from fire, loss from physical accidents, and loss from environmental exposure.

Career Opportunities

Profession in, but not limited to, the design, construction, manufacturing, utilities or other technical fields with the following possible job titles:

- Fire Protection Engineer
- Safety Specialist Engineer
- Risk Engineer
- Sprinkler Design Engineer
- Safety Coordinator
- Environmental Health & Safety Specialist
- Building Inspector
- Code Enforcement and Plan Reviewer
- Fire Inspector
- Fire Marshall
- Environmental Health & Safety Engineer
- Hazardous Materials Specialist
- Industrial Hygienist
- Loss Control Specialist

Type of Degree
Bachelor of Science in Engineering Technology

Accreditation
Engineering Technology Accreditation Commission of ABET

Qualified Academic Program through the Board of Certified Safety Professionals

Salary Range
$52,000 - $84,000
Average Salary: $66,000

Student Organizations and Competition Teams:

- American Society of Safety Professionals
- Fire Protection Society
- Firefighter Combat Challenge
- Society of Fire Protection Engineers
## Typical Four-Year Curriculum

### FRESHMAN YEAR
**Fall Semester**
- CHEM 1414 General Chemistry I
- FPST 1213 Fire Safety Haz Recon
- MATH 2123 Tech Calc I
- HIST 1103 American History
- ENGL 1113 Fresh Comp I

**Spring Semester**
- POLS 1113 American Government
- FPST 1373 Fire Supp & Det Sys
- ENGR 1322 Graphics Design
- MATH 2133 Tech Calc II
- XXXX XXXX “H” elective
- XXXX XXXX “A” or “N” elective

### SOPHOMORE YEAR
**Fall Semester**
- FPST 2483 Fluid Mechanics for Fire Protection
- FPST 2023 Occup Safety Techn
- STAT 2013 Statistics
- PHYS 1114 Physics I
- XXXX XXXX “S” elective

**Spring Semester**
- FPST 2343 Industrial Hygiene
- FPST 2243 Sprinkler Sys Design
- MATH 3263 Linear Alg &Diff Eq
- ENSC 2113 Statics
- XXXX XXXX “H” elective

### JUNIOR YEAR
**Fall Semester**
- FPST 3143 Life Safety Analysis
- FPST 3213 Human Factors
- PHYS 1214 Physics II
- MET 3433 Thermodynamics
- ENGL 3323 Technical Writing

**Spring Semester**
- GENT 3323 Strength of Materials
- FPST 3373 Fire Dynamics
- IEM 3513 Eng Economic Analysis
- MGMT 3013 Management
- FPST 3013 Safety Management
- XXXX XXXX “S” Elective

### SENIOR YEAR
**Fall Semester**
- FPST 4143 Ind Vent & Smoke Control
- CHEM 3013 Organic Chemistry
- FPST 4403 HazMat Incident Mgmt
- FPST 4982 Fire Protection & Safety Projects I
- XXXX XXXX Specialty Elective
- XXXX XXXX Specialty Elective

**Spring Semester**
- FPST 4683 Ind Loss Prevention
- FPST 4333 Sys & Process Safety
- FPST 4992 Fire Protection & Safety Projects II
- XXXX XXXX Controlled Elective
- XXXX XXXX Controlled Elective

**TOTAL HOURS: 125**

This course plan for general guidance only. An official course plan will be provided upon enrollment.

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