

Occupational and Environmental Safety A.A.S.

— Occupational Safety Emphasis

Program Description

This program prepares students to enter the safety field in business, industry or government and to provide the opportunity for those working in the field to update their skills. The related and support courses, coupled with the occupational specialty courses, provides the student with the education and skills necessary for professional certification examinations. Topics covered in the program include: industrial hygiene, regulatory laws, environmental safety and various safety courses. The MATH, CHEM, and ENGL courses are foundational to the entire FPST curriculum and are prerequisites for many courses. The MATH, CHEM and ENGL courses should be completed as soon as possible, preferably before the student has completed 25 credit hours in the program.

Degree Awarded

Associate in Applied Science

Technical Occupational Specialty

				32 Credit Hours	Date	Institution
<input type="checkbox"/>	FPST	1213	Fire and Safety Hazards Recognition	3		
<input type="checkbox"/>	FPST	1513	OSHA Regulations and Safety Codes	3		
<input type="checkbox"/>	FPST	1684	Industrial Loss Prevention	3		
<input type="checkbox"/>	FPST	1813	Introduction to Environmental Law	4		
<input type="checkbox"/>	FPST	2344	Elements of Industrial Hygiene	3		
<input type="checkbox"/>	FPST	2403	Safety Management Techniques	4		
<input type="checkbox"/>	FPST	2413	Industrial Hygiene Instrumentation	3		
<input type="checkbox"/>	FPST	2633	Chemistry of Hazardous Material	3		

Select 6 credit hours from the following:

<input type="checkbox"/>	FPST	1313	Introduction to Occupational Safety	3		
<input type="checkbox"/>	FPST	1320	Technical Problems-Fire Protection	1-4		
<input type="checkbox"/>	FPST	1373	Fire Suppression and Detection Systems	3		
<input type="checkbox"/>	FPST	2143	Structural Design for Fire and Life Safety	3		
<input type="checkbox"/>	FPST	2243	Design and Analysis of Sprinkler Systems	3		
<input type="checkbox"/>	FPST	2483	Fire Protection Hydraulics and Water Analysis	3		

For More Information Contact:

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Support and Related Courses

				16 Credit Hours		
<input type="checkbox"/>	CHEM	1104	Basic Chemistry	4		
or						
<input type="checkbox"/>	CHEM	1214	Chemistry I	4		
or						
<input type="checkbox"/>	CHEM	1314	General Chemistry I	4		
<input type="checkbox"/>	CIS	Any 3 credit hours of computer science.		3		
				9		

General Education Requirements

				18 Credit Hours		
<input type="checkbox"/>	ENGL	1113	English Composition I	3		
<input type="checkbox"/>	ENGL	2333	Introduction to Technical Report Writing	3		
<input type="checkbox"/>	HIST	1483	U.S. History to 1865	3		
or						
<input type="checkbox"/>	HIST	1493	U.S. History Since 1865	3		
<input type="checkbox"/>	MATH	1513	College Algebra	3		
<input type="checkbox"/>	POLS	1113	American Government	3		
				3		

Any 3 hours of course work approved by department head

Total to Graduate

66 Credit Hours

Student Name:	_____
CWID:	_____
Counselor:	_____

FPST 1213 FIRE AND SAFETY HAZARDS RECOGNITION

An intensive study of "the fire problem." A survey of physical, chemical and electrical hazards and their relationship to loss of property and/or life. Transportation and handling practices are emphasized to eliminate or control the potential risk of fire in the home, business and industry. Lab: three hours per week.

FPST 1513 OSHA REGULATIONS AND SAFETY CODES

A course designed to give the student a working knowledge of the OSHA (Occupational Safety and Health Administration) regulations including interpretation, protest procedures and inspection procedures. Also, the student will gain an understanding of equipment, material and staffing needs in relation to OSHA requirements.

FPST 1684 INDUSTRIAL LOSS PREVENTION

An examination of specific industrial processes, equipment, facilities and work practices to understand potential hazards and techniques for detecting and controlling such hazards. Lab: three hours per week. Prerequisite: FPST 1213 or consent of instructor.

FPST 1813 INTRODUCTION TO ENVIRONMENTAL LAW

A study of environmental laws, statutory rules, regulations and compliances as they apply to industry

FPST 2344 ELEMENTS OF INDUSTRIAL HYGIENE

A study of toxic or irritating substances, environmental pollution sources and controls, and physical, biological, ergonomic and other occupational stress factors causing employee illness or discomfort. Prerequisite: CHEM 1314 or CHEM 1214 or CHEM 1104.

FPST 2403 SAFETY MANAGEMENT TECHNIQUES

A study of the components necessary in a safety program including records, workman's compensation, promoting motivation, inspection and audits, training, safety meetings, accident investigation and fleet safety. Lab: two hours per week.

FPST 2413 INDUSTRIAL HYGIENE INSTRUMENTATION

Studies specific industrial hygiene problems including evaluation, instrumentation, recognition and control of physical exposure, air contaminates, stress, heat, noise and radiation. Lab: two hours per week. Prerequisites: FPST 2344.

FPST 2633 CHEMISTRY OF HAZARDOUS MATERIALS

Basic chemistry of hazardous materials to include fire/safety concerns and techniques to recognize, evaluate and control potential hazards. Lab: two hours per week. Prerequisites: FPST 1213 and CHEM 1314 or CHEM 1214 or CHEM 1104 or consent of instructor.

Select 6 credit hours from the following:

FPST 1313 INTRODUCTION TO OCCUPATIONAL SAFETY

A course in industry safety, giving an overview of state and national regulations in safety. The course will also cover the basic areas of an industrial safety program, as well as reporting, investigating and analyzing the results.

FPST 1321-1324 TECHNICAL PROBLEMS - FIRE PROTECTION

One to four, maximum six credits. Technical problems in fire protection that are of particular interest to technicians. Prerequisite: consent of the department head.

FPST 1373 FIRE SUPPRESSION AND DETECTION SYSTEMS

Scope of study includes the design, installation, maintenance and utilization of portable fire extinguishing appliances, pre-engineered systems and engineered systems. Fire detection and signaling systems are evaluated for operational capabilities and utilization requirements. Modern principles of fire detection and suppression are applied to practical laboratory problems. Lab: three hours per week. Same as MFP 1373.

FPST 2143 STRUCTURAL DESIGNS FOR FIRE AND LIFE SAFETY

Building construction methods are critically examined within the scope of pertinent standards and codes to assure maximum life and property safety from fires, explosions and natural disaster. Lab: three hours per week. Prerequisite: ARCH 1223 or consent of instructor. Same as MFP 2143.

FPST 2243 DESIGN AND ANALYSIS OF SPRINKLER SYSTEMS

Detailed application of current standards of selection, design, installation, operation and maintenance of automatic fire suppression systems. Concurrent laboratory problems stress applicable principles. Lab: three hours per week. Prerequisites: FPST 1373 and MATH 1513 and FPST 2483.

FPST 2483 FIRE PROTECTION HYDRAULICS AND WATER SUPPLY ANALYSIS

A study of the mechanics of fluid flow through hoses, pipes, pumps and fire protection appliances. Water supply and distribution facilities are analyzed by hydraulic calculations and applied testing techniques to detect anomalies in design or performance capabilities. Lab: three hours per week. Prerequisite: FPST 1373 and MATH 1513.