

# DEGREES & CERTIFICATES

## OCCUPATIONAL SAFETY AND HEALTH ASSOCIATE OF SCIENCE (AS)

### About the Program

The Associate of Science in Occupational Safety and Health degree program is designed to provide students the academic foundation for understanding hazardous materials management, construction safety, OSH safety training and accident investigation, for workplace safety and health standards. The Occupational Safety and Health specialist implements mandated health and safety regulations in an effort to control occupational accidents and diseases, property losses and injuries due to unsafe working conditions. The scope of this position includes the identification of physical hazards and the design and implementation of remediation, the evaluation of potential toxic agent risk to the employer, the development of safety management and employee training/management programs. The demand for occupational safety and health specialists has grown over the past 10 years. According to the U.S. Bureau of Labor Statistics, federal, state and local government job growth will continue through 2022.

### Program Goals and Objectives

The Associate of Science in Occupational Safety and Health (OSH) degree program is designed to provide students the academic foundation for understanding hazardous materials management, construction safety, OSH safety training and accident investigation, for workplace safety and health standards. Occupational Safety and Health students learn to recognize and control workplace hazards (using OSHA's hierarchy of controls) including chemical, physical, radiological, biological agents and ergonomic factors and how to prepare an emergency response plan. Students apply a working knowledge of mathematics and the sciences to conduct experiments and to analyze and interpret data to solve safety and health related issues. Industries needing Occupational Safety and Health personnel are Manufacturing, Construction, Health Care, Agriculture, Maritime, Oil & Gas, and State and Federal Agencies.

### Career Opportunities

The safety and health practitioner may specialize in general workplace safety, construction, fire and property protection, transportation, chemical and radiological safety, emergency response, systems or product design. The Associate in Science degree in Occupational Safety and Health is designed for direct job entry and/or career enhancement. Completion of the degree may be used to provide work experience credit toward OHST (Occupational Health and Safety Technician) certification requirements. Completion of the degree may be used to provide work experience credit toward CSP (Certified Safety Professional) certification requirements. Career opportunities include Safety Manager, Safety Technician, Safety Specialist, Safety Officer, Industrial Hygienist, Safety Professional – Construction, Safety Professional – Manufacturing, Safety Professional – Metals, Field Safety and OSHA Specialist, and Safety and Environmental Manager.

### Program Outcomes

- Upon completion of the AS in Occupational Safety and Health, students are able to apply a working knowledge of mathematics and the sciences to conduct experiments and to analyze and interpret data to solve safety and health-related issues in the workplace.
- Upon completion of the AS in Occupational Safety and Health, students are able to prepare emergency response and fire prevention plans that meet regulatory requirements.
- Upon completion of the AS in Occupational Safety and Health, students are able to design programs to control, eliminate, and prevent occupational disease or injury caused by chemical, physical, radiological, and biological agents or ergonomic factors.

### Required Core: (32-33 Units)

BIO 20 Contemporary Human Biology.....	3
CHEM 30A Introductory and Applied Chemistry I or .....	4
CHEM 1A General College Chemistry I.....	5
CIS 50 Introduction to Computing Information Technology.....	3
FST 4 Fire Prevention.....	3
OSH 50 Intro Occupational Safety/Hlth.....	3
OSH 60 Elements of Industrial Hygiene.....	3
OSH 62 Physical Hazards.....	3
OSH 67 Comp Regulatory Requirements.....	3
PHYS 10 Descriptive Physics.....	3
RADS 40A Radiation Safety.....	2
RADS 40B Emergency Response and Monitoring.....	1
RADS 40C Safety Controls and Regulation.....	1

### List A: Select One (4-5 Units)

CHEM 1B General College Chemistry II.....	5
CHEM 30B Introductory and Applied Chemistry II.....	4
MATH 40 Statistics and Probability.....	4

### List B: Select One (3-4 Units)

BIO 30 Introduction to College Biology.....	4
BIO 40 Humans and the Environment.....	3
BIO 50 Anatomy and Physiology.....	4

**Total Units for the Major..... 39-42**

### Program-Based GE Requirement: (3 Units)

PSYC 1 General Psychology.....	3
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**Additional General Education and Elective Units..... 15-18**