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# Occupational Safety & Health (OSH)

#### Courses

#### OSH A100 Basic Workplace Safety 1 Credit

Introduces the training, recognition, avoidance, abatement and prevention of safety and health hazards in the workplace. Includes direct interaction with local employers and industry representatives. Includes case studies and enriching activities.

**Special Note:** Students who complete this course may meet the requirements for an OSHA-10 card. Does not fulfill a major requirement for the Associate of Applied Science in Occupational Safety and Health or the Bachelor of Science in Occupational Safety and Health.

**OSH A101** Introduction to Occupational Safety and Health **3 Credits** Introduces regulatory, consensus and industrial standards applicable to the occupational safety and health profession. Examines the role of the safety professional and the philosophy of incident prevention in the workplace.

#### OSH A108 Industrial Safety 3 Credits

Provides an overview of hazards associated with common industrial processes and practices, hazard avoidance and risk mitigation efforts (including safe work practices), and organizational emergency preparedness and response considerations.

## OSH A111 Occupational Safety Training Needs and Methods 3 Credits

Introduces safety and health training needs in the workplace and includes development of training materials to conduct training sessions for diverse audiences. Emphasizes regulatory compliance.

**Prerequisites:** WRTG A111 with a minimum grade of C or WRTG A1W with a minimum grade of C.

**OSH A120** Safety Program Management and Recordkeeping **3 Credits** Discusses the role of safety in business and government. Emphasizes the philosophy of safety and health efforts by management. Examines the role of the safety professional, the types of safety management systems utilized in the workplace, and the techniques used for accurate recordkeeping.

#### OSH A160 Fundamentals of Industrial Hygiene 3 Credits

Provides a basic understanding of industrial hygiene. Focuses on introducing students to concepts, terminology, methodology and the roles of industrial hygienists.

**Prerequisites:** (BIOL A100 with a minimum grade of C or BIOL A102 with a minimum grade of C or (BIOL A111 with a minimum grade of C and BIOL A111L with a minimum grade of C)) and (MATH A104 with a minimum grade of C or MATH A121 with a minimum grade of C or MATH A151 with a minimum grade of C) and OSH A108 with a minimum grade of C.

## OSH A201 Hazard Control: Inspections, Audits and Investigations 3 Credits

Covers assessment and evaluation of workplace hazards through inspections, audits and incident investigations. Includes practical applications and special emphasis on conducting incident investigations.

Prerequisites: OSH A108 with a minimum grade of C.

#### **OSH A211** Safety Management Systems **4 Credits**

Examines the role of safety programs in the workplace. Emphasizes safety program standards, assessment, design, development, implementation, and evaluation.

**Prerequisites:** (WRTG A211 with a minimum grade of C or WRTG A212 with a minimum grade of C or WRTG A213 with a minimum grade of C or WRTG A214 with a minimum grade of C) and OSH A120 with a minimum grade of C.

### OSH A215 Environmental Issues for Safety and Health Professionals 3 Credits

Analyzes and interprets requirements for preventing air, surface water, ground water and soil contamination from industrial operations. Places special emphasis on petrochemical contamination of arctic lands and waters. Familiarizes occupational safety and health students with environmental regulations and requirements.

Prerequisites: OSH A108 with a minimum grade of C.

#### **OSH A230** Principles of Ergonomics **3 Credits**

Examines workplace ergonomics, emphasizing types and sources of physiological stressors and their mitigation.

**Prerequisites:** BIOL A100 with a minimum grade of C or BIOL A102 with a minimum grade of C or (BIOL A111 with a minimum grade of C and BIOL A111L with a minimum grade of C).

### OSH A240 Workplace Monitoring: Instrumentation and Calibration 3 Cradits

Examines the equipment used in performing measurements of environmental factors in the workplace, including noise, lighting, vibration, chemicals and heat stress. Emphasizes equipment types, applications and calibration. Evaluates environmental factors found in Alaska workplaces.

Prerequisites: OSH A160 with a minimum grade of C.

### OSH A250 Hazardous Materials Operations 3 Credits

Identifies the policies, procedures and equipment needed to manage hazardous materials emergency response and cleanup.

Prerequisites: OSH A108 with a minimum grade of C.

### OSH A295 Occupational Safety & Health Internship 3-6 Credits

Focuses on pertinent professional work practices, familiarizes students with safety program operational requirements, hazard control activities, safety monitoring and testing equipment used in the profession, and gives insight into the roles and responsibilities of OSH professionals. A minimum of two hundred twenty-five hours of in-the-field work under the supervision of a qualified OSH professional is required.

**Registration Restrictions:** Occupational Safety & Health (OSHL) advisor approval

#### OSH A305 Incident Investigation and Analysis 3 Credits

Analyzes the needs and responsibilities for reporting and investigating incidents; defines and discusses the types of incidents; explores various investigation techniques; and prepares students to interview witnesses, determine causes and corrective actions, and prepare reports.

Prerequisites: OSH A201 with a minimum grade of C.

#### **OSH A310** Human Factors 3 Credits

Discusses the human factors that must be evaluated when designing and engineering work stations and job tasks. Explores and evaluates the basics of human perceptual, cognitive and motor abilities relevant to the workplace and their impact upon workers' safety and health.

**Registration Restrictions:** Junior or senior standing **Prerequisites:** OSH A230 with a minimum grade of C.

**OSH A360** Industrial Hygiene for the Safety Professional **3 Credits** Assesses acute and chronic health effects of exposures to chemical, physical, and biological agents in the workplace. Emphasizes data gathering and analysis for the performance of workplace monitoring for the safety professional.

**Prerequisites:** OSH A160 with a minimum grade of C.

#### **OSH A375** Process Safety Management 3 Credits

Introduces the current theory and practice of process safety, with emphasis on petrochemicals. Explores the technical, legal and management concepts necessary for the prevention of toxic chemical releases and catastrophes.

**Prerequisites:** OSH A211 with a minimum grade of C and OSH A250 with a minimum grade of C and OSH A360 with a minimum grade of C.

### OSH A390 Selected Topics in Occupational Safety and Health 1-3 Credits

Covers various topics not normally taught on a scheduled basis in OSH. Course content determined by industry needs.

**Special Note:** May be repeated for a maximum of 9 credits with change of subtitle.

Registration Restrictions: Department approval

**OSH A405** Construction Industry Safety Management **3 Credits** Focuses on the recognition, control and management of hazards encountered in the construction industry. Analyzes safety and health hazards to develop plans and programs that mitigate or eliminate hazards. Includes a detailed discussion of 29 CFR Part 1926.

**Prerequisites:** OSH A201 with a minimum grade of C.

### OSH A420 Legal Aspects of Safety 3 Credits

Analyzes and evaluates the common legal, ethical and professional issues that safety and health professionals may encounter in the workplace. Topics explored include OSHA and AKOSH, EPA and ADEC, Bureau of Safety and Environmental Enforcement (BSSE), Mine Safety and Health Administration (MSHA), Workers' Compensation, and common liability issues.

**Prerequisites:** (PHIL A303 with a minimum grade of C or PHIL A305 with a minimum grade of C) and OSH A215 with a minimum grade of C.

#### OSH A450 Risk Management for Safety and Health 3 Credits

Focuses on identification, evaluation, and control of workplace hazards and risks using loss control techniques and the risk management process. Emphasizes integration of risk management strategies into daily operations.

**Prerequisites:** OSH A305 with a minimum grade of C and STAT A200 with a minimum grade of C.

#### OSH A460 Economic Value of Safety 3 Credits

Integrates professional, communication and analytical skills with general education knowledge to evaluate costs and savings associated with developing and maintaining health and safety programs. Assesses and calculates the effects of injuries and incidents on organizations' productivity and profits. Requires a comprehensive written report and an oral presentation at the end of the class.

**Registration Restrictions:** Junior or senior standing in the Community & Technical College

**Prerequisites:** OSH A450 with a minimum grade of C or concurrent enrollment.

Attributes: UAA Integrative Capstone GER.

### OSH A495 Advanced Occupational Safety and Health Internship 3 Credits

Provides career development and exploration through experience by placement in a workplace safety position. Requires interns to perform duties directly related to occupational safety and health management functions.