

**OCCUPATIONAL SAFETY & HEALTH CARE ADMINISTRATION COURSE DESCRIPTIONS**  
**ALL COURSES ARE THREE (3) SEMESTER CREDITS UNLESS OTHERWISE NOTED**

**MOSH 6010 Theory and Practice of Industrial Hygiene**

The practice of industrial hygiene including the anticipation, recognition, evaluation, and control of workplace hazards. The evaluation of the extent of exposure to harmful chemical and physical agents in the workplace is emphasized.

**MOSH 6020 Principles and Application of Safety Engineering**

Examination of the most common hazards within the workplace. Determining the effects of these workplace hazards including management and engineering techniques to prevent injury in the workplace. Students are expected to be familiar with basic computational exercises in safety and health. The application of computer and computer systems in safety engineering, and hazard controls.

**MOSH 6030 Fire Protection Safety Standards and Practices**

The latest workplace fire protection practices, safety standards, and technology are covered. A systems approach to fire safety through: prevention, design, detection and alarm, suppression, confinement and the evacuation of occupants are studied.

**MOSH 6040 Safety Regulations on Prevention of Accidents**

A thorough understanding of all safety and accident issues facing occupational health and safety professionals. Accident prevention, health and safety regulations, health care and health and safety compensation costs and benefits, professional ethics concerning health and safety, and workplace hazards are required. A Values-Based Behavioral Safety Process will be used as a model.

**MOSH 6050 ISO 14000 & OSHAS 18001**

The International Organization for Standardization (ISO) 14000 series on Environmental Management and OSHAS 18001 will be covered. Students are expected to understand the issues relating to the development and implementation of policy statements and components of an Environmental Management System (EMS) for the organization. The development and implementation of the EMS is required.

**MOSH 6060 System Safety Structure & Practice**

This Module is designed to provide the fundamental principles of safety science and the skills need to identify and deal with safety issues in the workplace. It will also highlight the Malaysian Occupational Safety & Health Legislation, which provides the basis of the Occupational Safety & Health Management System in the workplace. The course will cover the following:

The fundamental principles of managing safety including the identification, evaluation and control of hazards at the workplace.

The compliance with Occupational Safety & Health legislative requirements in the workplace.

The objective is to learn the fundamentals of the interactions between humans, work and safety. It concentrates of identification of workplace hazards, their associated risks to health and how they can be controlled.

**MOS 6070 Environmental Safety**

This course introduces the methods used to quantify human health and ecological risks associated with the presence of hazardous chemicals and pathogens in the environment. Environmental risks can be quantified when the following elements are known: the source of the chemical/pathogen posing risk(s) to human and/or ecological receptors; the fate and transport mechanisms by which a chemical/pathogen moves from the source of the receptors; exposure scenarios; the dose to the receptors; these elements will be evaluated during the course. Theoretical concepts used in environmental risk assessment

To understand the regulatory requirements for occupational safety and health.

To acquire sufficient skill to conduct a chemical health risk assessment, knowledge and recognize and be able to identify other environmental risks such as physical and biological risk at the workplace.

### **MOS 6080 Toxicology**

This course provides an outline of the toxicological, occupational hygiene and environmental aspects of chemical hazards and exposures. Metals, solvents, toxic and irritant gases, pesticides, carcinogens, hazardous wastes and dioxins are used as case studies. The principles of toxicology is explored including absorption, distribution, and excretion of toxicants and the bio-transformation of toxicants. Assessment of risk and safety in the use of carcinogenic and non-carcinogenic chemicals will also be dealt with.

After completing this course, students should:

- Be able to understand and use principles of toxicology, sufficient to be able to communicate effectively with toxicology professionals;
- Understand the toxic effects of major categories of chemical groups;
- Be able to conduct a complete assessment of the toxic effects of a chemical.

### **MOS 6090 Safety Training and Development**

Safety training, education and development and their impact on the organization are studied. A systems approach to the development and delivery of safety training in today's organization. Topics include needs assessments, curriculum design, and the effectiveness of training in safety.

### **MOS 6100 Ergonomics Theory and Practice**

The tools necessary for solving ergonomic and human factors engineering problems in a wide range of specific fields and industries are studied. Techniques used in training effectiveness studies are covered.

### **MOS 6200 Thesis including Research Methods**

Students are expected to complete a major dissertation in the area of their choice within the Safety and Health Discipline. (6 semester credits)