

**Title:** Occupational Health & Safety

**Code Number:** MD3203

**Credit Hours:** 3 (3+0)

**Prerequisites:** None

**Semester:** 6<sup>th</sup>

### **Course Objectives**

The course will enable students to:

1. Identify and describe the core components of a computer system, including CPU, RAM and ROM.
2. Describe the construction and functioning of Storage Devices and Motherboard

### **Course Content:**

#### **Unit 1: Health and Safety Foundations**

1. Nature and scope of health and safety
2. Reasons/benefits and barriers for good practices of health and safety Legal frame work and OHS Management System

#### **Unit 2: Fostering a Safety Culture**

1. Four principles of safety- RAMP (Recognize, Assess, Minimize, Prepare)
2. Re-thinking safety-learning from incidents Safety ethics and rules
3. Roles and responsibilities towards safety Building positive attitude towards safety Safety cultures in academic institutions

#### **Unit 3: Recognizing and Communicating Hazards**

1. Hazards and Risk
2. Types of hazards: Physical (mechanical and non-mechanical), Chemical (Toxic and biological agents), electrical, fire, construction, heat and temperature, noise and vibration, falling and lifting etc
3. Learning the language of safety: Signs, symbols and labels Finding Hazard Information
4. Material safety data sheets
5. Safety data sheets and the GHS (Globally Harmonized Systems)

#### **Unit 4: Accidents & Their Effect on Industry**

1. Costs of accidents
2. Time lost
3. Work injuries, parts of the body injured on the job
4. Chemical burn injuries
5. Construction injuries Fire injuries

#### **Unit 5: Assessing and Minimizing the Risks from Hazards**

1. Risk Concept and Terminology
2. Risk assessment procedure
3. Risk Metric's
4. Risk Estimation and Acceptability Criteria
5. Principles of risk prevention
6. Selection and implementation of appropriate Risk controls Hierarchy of controls

#### **Unit 6: Preparing for Emergency Response Procedures**

1. Fire
2. Chemical Spill
3. First Aid

4. Safety Drills/Trainings: Firefighting, Evacuation in case of emergency

### **Unit 7: Stress and Safety at Work Environment**

1. Workplace stress and sources
2. Human reaction to workplace stress Measurement of workplace stress
3. Shift work, stress and safety
4. Improving safety by reducing stress
5. Stress in safety managers
6. Stress and workers compensation

### **Unit 8: Incident Investigation**

1. Importance of investigation
2. Recording and reporting
3. Techniques of investigation Monitoring
4. Review
5. Auditing Health and Safety

#### **Teaching-Learning Strategies:**

The pedagogical approach to this course relies on face-to-face teaching in a university classroom environment. The lectures are delivered using multimedia support and on white board. Students are engaged and encouraged to solve real world problems using computer-aided tools.

#### **Assignments/Types and Number with calendar:**

A minimum of four assignments to be submitted before the written exams for each term.

#### **Assessment and Examinations:**

Sr. No.	Elements	Weightage	Details
1.	Midterm Assessment	35%	It takes place at the mid-point of the semester.
2.	Sessional Assessment	25%	It is continuous assessment. It includes: classroom participation, attendance, assignments and presentations, homework, attitude and behavior, hands-on-activities, short tests, quizzes etc.
3.	Final Assessment	40%	It takes place at the end of the semester. It is mostly in the form of a test, but owing to the nature of the course the teacher may assess their students based on term paper, research proposal development, field work and report writing etc.

#### **Recommended Books:**

1. The A-Z of health and safety by Jeremy Stranks, 2006.
2. The Manager's Guide to Health & Safety at Work by Jeremy Stranks, 8th edition, 2006.
3. Occupational safety and health law handbook by Ogletree, Deakins, Nash, Smoak and Stewarts, second edition. 2008.