### COURSE BASICS

Course Title**: Occupational Health and Safety**

Course Code**: ENV - 101**

Credit Hours**: 1+0**

Prerequisite**: Occupational Health and Safety (ENV – 101)**

Class & Section:

**Course Objectives and Description:**

This course introduces the student to the study of workplace occupational health and safety. The students will learn safe work practices in offices, industry and construction as well as how to identify and prevent or correct problems associated with occupational safety and health in these locations as well as in the home.

**Course Learning Outcomes (CLO):**

After completion of this course, students will be able to identify hazard at workplace, risk assessment associated with particular hazard, action plan for prevention, emergency preparedness, monitoring, reevaluation and inspection/audit:

***Theory***

|  |  |  |  |
| --- | --- | --- | --- |
| CLO | Statement | Bloom’s Taxonomy | Associated PLO |
| 1 | Explain that safety standards that must be maintained in compliance with regulatory requirements of Engineering for maintaining a sustainable environment. | C2 | PLO7 |
| 2 | Demonstrate an understanding of workplace injury prevention, risk management and incident investigations. | C3 | PLO7 |
| 3 | Present the policies, procedures and equipment needed to deal with hazardous environment. | A2 | PLO7 |

**Weekly Breakdown:**

|  |  |  |
| --- | --- | --- |
| Week | **Date** | **Topics** |
| 1 | Feb 23, 2023 – March 9, 2023 | Introduction to Occupational Health and Safety |
| 2 | March 09, 2023 | Health and Safety History |
| 3 | March 16, 2023 | Legal frame work and OHS Management System |
| 4 | March 23, 2023 | Quiz 1 + Guest Lecture |
| 5 | March 30, 2023 | Fostering a Safety Culture at workplace |
| 6 | April 6, 2023 | Recognizing and Communicating Hazards |
| 7 | April 13, 2023 | Finding Hazard Information |
| 8 | April 20, 2023 | Accidents & Their Effect on Industry +Quiz 2 |
| 9 | April 27, 2023 | Quiz 2 + Industrial Visit/ Guest Lecture (If Allowed) |
| **10** | **May 09, 2023 -May 14, 2023** | **MIND TERM EXAMINATIONS** |
| 11 | May 18, 2023 | Assessing and Minimizing the Risks from Hazards (Risk Assessment Procedure and Estimation) |
| 12 | May 25, 2023 - June 1, 2023 | Assessing and Minimizing the Risks from Hazards (Selection and implementation of appropriate Risk controls, Hierarchy of controls) + Quiz 3 |
| 13 | June 8, 2023 - June 15, 2023 | Preparing for Emergency Response Procedures Fire and Chemical Spill + Fire Safety Drill |
| 14 | June 22, 2023 - June 29, 2023 | Preparing for Emergency Response Procedures First Aid and Safety drills/Training (Firefighting, Evacuation in case of emergency) + First Aid Training  Quiz 4 |
| 15 | July 6, 2023 | Stress and Safety at Work Environment  • Workplace stress and sources  • Human reaction to workplace stress  • Measurement of workplace stress  • Shift work, stress and safety  • Improving safety by reducing stress  • Stress in safety managers |
|  | **July 18, 2023 – July 30, 2023** | **FINAL TERM EXAMINATIONS** |

|  |  |  |  |
| --- | --- | --- | --- |
| **Week** | **Week Days** | **Guest Lecture** | **Guest Affiliation** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

***NOTE:***

1. *This schedule is subject to revisions as conditions may warrant.*
2. *Topics will be covered in sequence no matter if city observes any planned or unplanned holidays.*
3. *The information in this course outline is subject to revision as conditions may warrant.*

**Course Assessment Method**

**Method of Evaluation and Structure:**

A student’s grade will be based on multiple measures of performance as mentioned below:

|  |  |
| --- | --- |
| **Evaluation Instruments (EI)** | **Marks** |
| Quizzes (4 Quizzes of 10 Marks) | 10 |
| Assignments (3 Assignments) | 20 |
| Mid Term Examination | 20 |
| Final Examination | 50 |
| **Total** | **100** |

*NOTE: Any change in this scheme/format will be communicated well in time.*

**Mapping of CLOs to PLOs (Program Learning Outcomes)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **PLO’s** | **CLO’s** | | | |
| **CLO 1** | **CLO 2** | **CLO 3** | **CLO 4** |
| PLO:1 (Engineering Knowledge) |  |  |  |  |
| PLO:2 (Engineering Problem Analysis) |  |  |  |  |
| PLO:3 (Designing and Development) |  |  |  |  |
| PLO:4 (Investigation) |  |  |  |  |
| PLO:5 (Modern tool usage) |  |  |  |  |
| PLO:6 (Engineer and Society) |  |  |  |  |
| PLO:7 (Environment and Sustainability) |  |  |  |  |
| PLO:8 (Professionalism and Ethics) |  |  |  |  |
| PLO:9 (Individual and Team Work) |  |  |  |  |
| PLO:10 (Communication) |  |  |  |  |
| PLO:11 (Project Management) |  |  |  |  |
| PLO:12 (Lifelong Learning) |  |  |  |  |

**Mapping of CLOs to Course Evaluation Instruments (EI)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **EI** | **CLO’s** | | | |
| **CLO 1** | **CLO 2** | **CLO 3** | **CLO 4** |
| Assignments |  |  |  |  |
| Quizzes |  |  |  |  |
| Projects |  |  |  |  |
| Midterm Exam |  |  |  |  |
| Final Exam |  |  |  |  |

**Grading System:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Letter Grade** | **Grade Point** | **Percentage** | |
| **A** | 4.0 | ≥ 85 | - |
| **A-** | 3.67 | ≥ 80 | < 85 |
| **B+** | 3.33 | ≥ 75 | < 80 |
| **B** | 3.00 | ≥ 71 | < 75 |
| **B-** | 2.67 | ≥ 68 | < 71 |
| **C+** | 2.33 | ≥ 64 | < 68 |
| **C** | 2.00 | ≥ 60 | < 64 |
| **C-** | 1.67 | ≥ 57 | < 60 |
| **D+** | 1.33 | ≥ 54 | < 57 |
| **D** | 1.00 | ≥ 50 | < 53 |
| **F** | 0.00 | - | < 50 |

**COURSE RESOURCES**

**Instructor:**

Name: Ms. Sadia Tariq

Designation: Visiting faculty

Office: N/A

Email: sadia.tariq.ku@gmail.com

**Counseling Hours:**

**Text Book:**

**Reference Books:**

**Online References:**

**Appendix I**

For Lab Based Courses

|  |  |  |
| --- | --- | --- |
| **Week** | **Week Days** | **Tentative Course Plan** |
| 1 |  |  |
| Lab:1 |
| 2 |  |  |
| Lab:2 |
| 3 |  |  |
| Lab:3 |
| 4 |  |  |
| Lab:4 |
| 5 |  |  |
| Lab:5 |
| 6 |  |  |
| Lab:6 |
| 7 |  |  |
| Lab:7 |
| 8 |  |  |
| Lab:8 |
| **9** | **Mid Term Exam** | |
| 10 |  |  |
| Lab:9 |
| 11 |  |  |
| Lab:10 |
| 12 |  |  |
| Lab:11 |
| 13 |  |  |
| Lab:12 |
| 14 |  |  |
| Lab:13 |
| 15 |  |  |
| Lab:14 |
| 16 |  |  |
| Lab:15 |
| 17 |  |  |
| Lab:16 |
| **18** | **Final Term Exam** | |

**Appendix II**

Blooms Taxonomy Levels Codes

|  |  |
| --- | --- |
| **C**ognitive | Knowledge (C1) |
| Comprehension (C2) |
| Application (C3) |
| Analysis (C4) |
| Synthesis (C5) |
| Evaluation (C6) |
| **A**ffective | Receiving (A1) |
| Responding (A2) |
| Valuing (A3) |
| Organization (A4) |
| Characterization (A5) |
| **P**sychomotor | Perception (P1) |
| Set (P2) |
| Guided Response (P3) |
| Mechanism (P4) |
| Complete Overt Response (P5) |
| Adaption (P6) |
| Organization (P7) |