## Alanya Alaaddin Keykubat University | Rafet Kayış Faculty of Engineering Mechanical Engineering Department 2024-2025 Fall Semester SYLLABUS

| Code/Name       | ISG 401 / Occupational Health and Safety I   |  |  |  |  |  |
|-----------------|--|--|--|--|--|--|
| Туре            | Required   |  |  |  |  |  |
| Credit/ECTS     | 2/2  |  |  |  |  |  |
| Hour per Week   | 2 (2+0+0)  |  |  |  |  |  |
| Level/Year      | Undergraduate/4  |  |  |  |  |  |
| Semester        | Fall   |  |  |  |  |  |
| Classroom       | WBA  |  |  |  |  |  |
| Content         | Safe work practices as well as how to identify, prevent and correct problems associated with safety and health in work environment. Occupational health and safety management system. Industrial hygiene. Risk management. Root-cause analysis of accidents and cost of accidents. Occupational diseases and work-related diseases. Case studies.  |  |  |  |  |  |
| Prerequisites   | NA   |  |  |  |  |  |
| Textbooks       | <u>Primary</u>   |  |  |  |  |  |
|                 | DL Goetsch, Occupational Safety and Health for Technologists, Engineers, and Managers, 8 <sup>th</sup> edition, Pearson Education Limited, 2015.   |  |  |  |  |  |
|                 | <ul> <li><u>Supplementary</u></li> <li>RH Friis, Occupational Health and Safety for the 21<sup>st</sup> Century, 7<sup>th</sup> edition, Jones &amp; Bartlett Learning, 2016.</li> <li>FR Spellman, Occupational Safety and Health Simplified for the Industrial Workplace, Bernan Press, 2016.</li> </ul>   |  |  |  |  |  |
| Objectives      | <ul> <li>To define and understand the basic terminology used in the field of OHS.</li> <li>To identify and describe the organization of regulatory agencies that deal with issues of OHS, environmental health, and risk management</li> <li>To interpret and apply legislative requirements, industry standards, and best practices in</li> </ul> |  |  |  |  |  |
|                 | a variety of workplaces  |  |  |  |  |  |
| Course Outcomes | In this course you will be able to:<br>CO1 Describe the main current issues in the field of OHS<br>CO2 Describe hazards in the workplace and safe work practices<br>CO3 State major occupational diseases and possible effects of the work environment on<br>health<br>CO4 State risk factors for common occupational injuries and deaths          |  |  |  |  |  |
|                 | CO5 Analyze the effects of workplace exposures, injuries and illnesses, and fatalities   |  |  |  |  |  |

## Weekly Schedule of Topics

| W  | Topic   |  |  |  |  |
|----|---|--|--|--|--|
| 1  | Introduction to OHS: An overview                                    |  |  |  |  |
| 2  | Laws and regulations: The OHS act, standards, and liability         |  |  |  |  |
| 3  | Employer's and workers' compensation                                |  |  |  |  |
| 4  | Accident investigation and reporting                                |  |  |  |  |
| 5  | Hazard assessment, prevention, and control                          |  |  |  |  |
| 6  | Mechanical, temperature extremes, pressure, and electrical hazards  |  |  |  |  |
| 7  | Fire hazards and life safety, radiation hazards                     |  |  |  |  |
| 8  | Industrial hygiene and confined spaces, noise and vibration hazards |  |  |  |  |
| 9  | Major occupational diseases   |  |  |  |  |
| 10 | Work-related injuries and fatalities                                |  |  |  |  |

- 11 Management of safety and health: Ethics and safety
- 12 Hazard analysis/prevention and safety management
- 13 Turkish law for OHS
- 14 Detailed investigation of OHS law and other procedures

| Professional | Utilize both theoretical and technical knowledge in occupational health and safety from |  |  |  |  |  |  |  |
|--------------|---|--|--|--|--|--|--|--|
| Contribution | the point of view of laws and regulations, management of health and safety, and         |  |  |  |  |  |  |  |
|              | occupational diseases.  |  |  |  |  |  |  |  |

## **Contribution to Program Outcomes**\*

|     |     | 0   |     |     |     |     |     |     |     |      |      |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|
|     | P01 | P02 | P03 | P04 | P05 | P06 | P07 | P08 | P09 | P010 | P011 |
| C01 | 4   | 2   | 1   | 2   | 2   | 3   | 4   | 1   | 2   | 2    | 3    |
| CO2 | 4   | 2   | 1   | 2   | 2   | 3   | 4   | 1   | 2   | 2    | 3    |
| CO3 | 4   | 2   | 1   | 2   | 2   | 3   | 4   | 1   | 2   | 2    | 3    |
| CO4 | 4   | 2   | 1   | 2   | 2   | 3   | 4   | 1   | 2   | 2    | 3    |
| C05 | 4   | 2   | 1   | 2   | 2   | 3   | 4   | 1   | 2   | 2    | 3    |

\* Contribution Level | 0: None | 1: Very Low | 2: Low | 3: Medium | 4: High | 5: Very High

| <b>Special Conditions</b> | The consequence of violation of the attendance rule is to receive a grade of <b>NA</b> .   |                           |     |  |  |  |  |
|---------------------------|--|---------------------------|-----|--|--|--|--|
| Requirements              | NA   |                           |     |  |  |  |  |
| Evaluation                | Midterm Exam<br><u>Final Exam</u><br>Total   | 40%<br><u>60%</u><br>100% |     |  |  |  |  |
| Rubric                    | NA   |                           |     |  |  |  |  |
| Course Policy             | <ol> <li>You must attend at least 70% of the sessions including add-drop period.</li> <li>Be in the class on time.</li> <li>English should always be used to communicate with one another.</li> <li>Mobile phone should be switched off and put away during the class.</li> <li>You cannot talk to your friends during class no matter what the subject is.</li> </ol> |                           |     |  |  |  |  |
| Cheating &<br>Plagiarism  | <ul> <li>Copying or letting someone to copy your work on exams, assignments, or reports is cheating.</li> <li>Cutting and pasting text, figures and tables from the web sources or any other electronic source is plagiarism.</li> <li>The consequence of academic dishonesty is to receive a grade of F for the course.</li> </ul>                                    |                           |     |  |  |  |  |
| nstructor                 |  |                           |     |  |  |  |  |
| Name/Surname              | NA   | Email                     | WBA |  |  |  |  |
| Room                      | WBA  | Office Hours              | WBA |  |  |  |  |