Course number and name	END 435 / Work Safety
Credits, contact hours, categorization of credits	3 credits / 42 hours / Engineering topic
Instructor or course coordinator	Esra BAŞ
Text book and other supplemental materials	• Goetsch, D. 2008. *Occupational safety and health for technologists, engineers, and managers*. Upper Saddle River, N.J.: Pearson Prentice Hall • Web sayfaları http://www.csgb.gov.tr; http://www.mevzuat.gov.tr; http://www.osha.gov; https://osha.europa.eu; http://www.hse.gov.uk/

Course information	
Content	Basic concepts in occupational safety and health, occupational accidents and diseases, risk management in occupational safety and health, national and international organizations for occupational safety and health and management systems, risk factors in occupational safety and health, occupational safety and health in manufacturing industry, occupational safety and health in construction industry, occupational safety and health in mining industry, occupational safety and health in electricity, national legislation
Prerequisites	None
Type	Selected elective

Course learning outcomes

Students who pass the course will:

I. Learn about the basic concepts, risk factors, risk management in occupational safety and health, and national/international organizations
II. Learn about the occupational safety and health management in sectors with high risks
III. Learn about the national legislation regarding occupational safety and health

Student outcomes	Level of contribution
SO1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.	Not applicable
SO2. An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors.	Partial
SO3. An ability to communicate effectively with a range of audiences.	High
SO4. An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.	Partial
SO5. An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives.	High
SO6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.	Not applicable
SO7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.	Little

Week	Topics	Learning outcome(s)
1	Basic concepts in occupational safety and health (OSH) and accident theories	I
2	Basic concepts in OSH and accident theories	I
3	Occupational diseases	I
4	Risk management in OSH and national legislation	I
5	Risk management in OSH and national legislation	I, III
6	National/international organizations for OSH and management systems	I
7	National/international organizations for OSH and management systems	I
8	Physical, chemical, biological risk factors in OSH	I
9	Physical, chemical, biological risk factors in OSH	I
10	OSH in manufacturing industry and national legislation	II, III
11	OSH in construction industry and national legislation	II, III
12	OSH in mining industry and national legislation	II, III
13	OSH in electricity and national legislation	II, III
14	Work environment monitoring and control for OSH	I