

BALIKESİR UNIVERSITY
ENGINEERING FACULTY
UNIVERSITY ELECTIVE COURSE INTRODUCTION FORM

Department/Programme	Environmental Engineering					
Course Unit Title	USD0000- Industrial Toxicology					
Semester	Fall ☐			Spring ☒		
Language of Instruction	Turkish ☐			English ☒		
Credit	Theoretical 2		Application		Total Credits 2	
Number of ECTS Credits	3					
Mode of Delivery	University Elective Course			Regular Education		
Objectives of the Course	The aim of this course is to provide information about the toxicity of materials encountered in industrial processes and multidisciplinary applications of toxicology, and to examine the ways in which toxic agents enter the body of living things and their mechanisms of action on target organs.					
Course Content	Introduction to toxicology, scope of industrial toxicology, definition of toxicological terms, classification of toxic substances, dose-response relationships, exposure to and effects on toxic compounds, workplace exposure to toxic substances, safety data sheets of chemical substances, risk assessment toxicity of metals and nonmetals, toxicity of food additives, pesticide toxicology, toxicology of industrial and environmental pollutants.					
Prerequisites and corequisites	There are no prerequisites for the course.					
Name of lecturer	Doç. Dr. Zürrkiye GÜNDÜZ			mail : zyilmaz@balikesir.edu.tr		
Assistants	-			mail :		
Internship	-					
Resources	1-Environmental Toxicants,Human Exposures and Morton Lippman, Second Edition,Wiley. 2-Toksikoloji Ders Notları, Dr. Utku Güner, Trakya Üniversitesi, https://unis.trakya.edu.tr/app_files/2023/07/KisiDokuman_Dosyalar_6_c55d8dc5.pdf 3-Risk Değerlendirme Rehberi, Murat Andaç, http://hwi.osha.europa.eu .					
Type of course unit	University Elective Course					
Planning learning activities and teaching methods	Theoretical explanation, midterm exam, final exam					
Assessment methods and criteria			ECTS allocated based on student workload			
In-term studies	Quantity	Percentage (%)	Activities	Quantity	Duration	Total work load (hours)
Mid-terms	1	40	Course Duration	14	2	28
Quizzes			Hours for off-the-c.r.stud	14	2	28
Assignment			Mid-	1	2	2

Prak Tarih ve Sayısı: 28.03.2025-E.503045			terms			
Attendance			Final Exams	1	2	2
Practice			Total work load (hours): 60			
Project			Number of ECTS credits: 3			
Final Exam	1	60				
Dersin Öğrenme Çıktıları		1. Learns toxicology and industrial toxicology facts. 2. Understands toxicological information of materials in industrial processes. 3. Learns necessary information about toxic substance exposure and exposure routes. 4. Learns to apply toxicology and risk assessment information in industrial production processes.				
Ders Konuları						
Hafta	Konu			Ön Hazırlık	Dökümanlar	
1	Introduction to the course and explanation of its scope				Course Resources	
2	Introduction to industrial toxicology				Course Resources	
3	Definition of terms in toxicology				Course Resources	
4	Classification of toxic substances				Course Resources	
5	Dose-response relationship in toxic substances				Course Resources	
6	Exposure to toxic substances and effects				Course Resources	
7	Mid-term exam					
8	Safety data sheets of chemical substances,				Course Resources	
9	Risk assessment study				Course Resources	
10	Toxicity of food additives,				Course Resources	
11	Pesticide toxicology,				Course Resources	
12	Toxicity of metals and nonmetals,				Course Resources	
13	Toxicology of industrial and environmental pollutants				Course Resources	
14	Final exam					
Contribution of the Course to Program Outcomes						