



**YOZGAT BOZOK UNIVERSITY FACULTY OF ARTS AND SCIENCES**  
**CHEMISTRY DEPARTMENT COURSE PLAN**

Course Code	Course Title	Semester	Course Type (C/E)	T+A+L (Time/Week)	Credit	ECTS	Course Language
KİM748	Toxicology	2	E	2+0+0	2	4	Turkish

**COURSE INFORMATION**

<b>Course Catalog Description (Content)</b>	Introduction / Toxicological terminology / Classification / Dose-response relationships / Receptors and toxic substances / Toxic compounds, exposure and impact / Effectiveness and transformation of toxic compounds, mutagenesis, carcinogenesis, teratogenesis, immunotoxicology / Metal and non-metals, toxic food additives / Pesticide toxicology / Industrial and environmental pollutants.
<b>The Aim of the Course</b>	Chemical Toxicology is intended for the use of people from various disciplines and diverse backgrounds. Examine the nature of the adverse effects of chemicals on living systems, the occurrence of adverse effects, to predict probabilities of occurrence, and the risk / benefit and risk assessment is to determine the rate.
<b>Course Level</b>	Undergraduate
<b>Course Language</b>	Turkish
<b>Teaching method</b>	(X) Formal ( ) Online (X) Mixed/Hybrid
<b>Teaching Staff of the Course</b>	Prof. Dr. İsmail AKDENİZ
<b>Prerequisite Course(s) of the Course</b>	-
<b>Learning Outcomes from the Course</b>	<ol style="list-style-type: none"><li>1. To examine the nature of the adverse effects of chemicals on living systems.</li><li>2. Students will occurrence of adverse effects, to predict probabilities of occurrence.</li><li>3. Students will be able to determine the Benefit / Loss rate and risk assessment.</li><li>4. Participates in interdisciplinary studies by using the basic knowledge of the field and analytical thinking ability.</li><li>5. Has the ability to design and implement experiments, use modern technical equipment, collect data and analyze results in order to solve problems.</li></ol>

**COURSE CONTENT**

Week	Theory	Practice/Laboratory
1	Introduction	
2	Toxicological Terminology	
3	Classification	
4	Dose-response Relationships	
5	Receptors and Toxic Substances	
6	Toxic Compounds, Exposure and Impact	
7	Effectiveness and Transformation of Toxic Compounds	
8	Effectiveness and Transformation of Toxic Compounds	
9	Mutagenesis, Carcinogenesis, Teratogenesis, Immunotoxicology	

10	Metal and Non-metals	
11	Toxic Food Additives	
12	Pesticide Toxicology	
13	Industrial and Environmental Pollutants	
14	Discussions, Research and Presentation	
15	Final Exam	

### Course Learning Resources

1.

#### ASSESSMENT CRITERIA

Work Activities During the Semester	Number	Contribution
Homework		
Practice		
Forum/ Discussion Application		
Short Exam (Quiz)	3	100
Ratio Of Semester Studies To Semester Success (%)		50
Ratio of Final to Success (%)		50
Total		%100

#### COURSE WORKLOAD TABLE

Activity	Total Weeks	Duration (Weekly Hours)	Total Workload
Theory	14	2	28
Practice			
Forum/ Discussion Application			
Reading			
Internet Scanning, Library Study	14	2	28
Material Design, Application			
Report Preparation			
Presentation Preparation			
Presentation			
Final Exam	1	2	2
Preparation for the Final Exam	1	10	10
Other(s) (Preparation for Quizzes and Exams)	3	10	30
<b>Total Workload</b>			98
<b>Total Workload / 25 (s)</b>			98/25
<b>ECTS Credits of the Course</b>			≅4
Note: The workload of the course will be determined by the instructor on a per-course basis.			

#### PROGRAM LEARNING OUTPUTS CONTRIBUTION LEVELS

No	Program Learning Outputs	1	2	3	4	5
1	Gains extensive knowledge about the basic chemical properties of matter and uses this knowledge in daily life, industrial scale, and practical chemistry and shares them with the society.				X	

2	Performs experiments, collects data, interprets, evaluates results, defines problems parallel to current technological developments, produces solutions against problems encountered in the laboratory.					X
3	Calculates and processes chemical information and data.					X
4	Applies her/his knowledge and understanding of chemistry to the solution of unconventional qualitative and quantitative problems.			X		
5	Defines and comprehends chemical concepts and theories in Inorganic Chemistry, Organic Chemistry, Physical Chemistry, Analytical Chemistry, Biochemistry.					X
6	Can conduct research in the light of scientific data on any subject in the field of chemistry.			X		
7	Writes, presents, discusses scientific material, and presents it orally to a knowledgeable audience.		X			
8	Brings a chemical approach to the solution of environmental problems, makes environmental analyzes and reports.			X		
9	Knows a foreign language at a level to read and understand the basic terms and processes of the chemist profession.	X				
10	Can use computer software and information and communication technologies at the level required by the field.	X				
11	Adapts and transfers the knowledge gained in the field to secondary education.				X	
12	Apart from the field of chemistry, she/he gains knowledge in different branches of science that she feels close to.			X		
13	Carries out a study independently, makes group work and gains the awareness of taking responsibility.			X		
14	They can develop a positive attitude towards lifelong learning and constantly renew their professional knowledge and skills.				X	
15	Have sufficient awareness of the universality of social rights, social justice, quality culture and protection of cultural values, environmental protection, occupational health and safety.				X	

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