



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
KİM747	Industrial Chemistry	1-2	E	2+0+0		5	Turkish

COURSE INFORMATION

Course Catalog Description (Content)	Chemical and physical basic processes, chemical production and percent yield, percent conversion, continuous and discontinuous flow diagrams and mass balances, water technology, industrial gases, industrial carbon, salt and various sodium compounds, phosphate fertilizers and phosphorus industries, sulfur sulfate industry, nitrogen industries, chloric acid and various inorganic chemicals, cements
The Aim of the Course	
Course Level	Bachelor degree
Course Language	Turkish
Teaching method	(X) Formal () Online () Mixed/Hybrid
Teaching Staff of the Course	Prof. Dr. Ramazan COŞKUN,
Prerequisite Course(s) of the Course	-
Learning Outcomes from the Course	<ol style="list-style-type: none">1- Gain the ability to apply physical chemistry and general chemistry knowledge to industrial production.2- Understand what factors (economic and chemical) are effective in industrial production.3- Can have an idea about new process developments.4- Classify industrial gases, explain production conditions and usage areas.5- Be able to have information about the properties and usage areas of various chemical compounds.

COURSE CONTENT

Week	Theory	Practice/Laboratory
1	Chemical and physical basic operations and duties of chemical engineer and chemist	
2	Chemical production and Percent Yield, Percent Conversion	
3	Continuous and Discontinuous Current Diagrams	
4	Mass Balances, Problems	
5	Water Technology	
6	Purification of Water	
7	Softening of Water	
8	Industrial gases	
9	Industrial carbon	
10	Sodium Compounds	
11	Phosphate fertilizers and phosphorus industries	
12	Sulfur sulfate industry	
13	Nitrogen Industry	
14	Cements	

15	Final Exam
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Course Learning Resources

1. Kimyasal proses endüstrileri 1. A.İhsan Çataltaş, 1983, İstanbul.
2. Kütle ve enerji denklıkları, Ömer Kuleli, 1982.
3. Kimyasal Teknolojiler. Aral Olcay, 2003, Gazi Büro Kitapevi. Ankara.
4. Su Teknolojisi, Hayri Yalçın, Metin Gürü,2002, Palme Yayıncılık, Ankara

ASSESSMENT CRITERIA

Work Activities During the Semester	Number	Contribution
Homework	1	30
Practice		
Forum/ Discussion Application		
Short Exam (Quiz)	2	70
Ratio Of Semester Studies To Semester Success (%)		%40
Ratio of Final to Success (%)	1	%60
Total		%100

COURSE WORKLOAD TABLE

Activity	Total Weeks	Duration (Weekly Hours)	Total Workload
Theory	14	2	28
Practice			
Forum/ Discussion Application			
Reading	14	2	28
Internet Scanning, Library Study	14	2	28
Material Design, Application			
Report Preparation			
Presentation Preparation	2	4	8
Presentation	2	3	6
Final Exam	1	1	1
Preparation for the Final Exam	4	7	28
Diğer (Belirtiniz: Ev Ödevi)			
Total Workload			127
Total Workload / 25 (s)			127/25
ECTS Credits of the Course			≅5

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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