



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
KİM707	History of Chemistry	1-2	E	2+0+0		4	Türkçe

COURSE INFORMATION

Course Catalog Description (Content)	Science in Ancient Civilizations: Science in Egypt and Mesopotamia, Science in Ancient Greece and Hellenistic Period; Science in Romans; Science in Medieval Europe and the Islamic World; Renaissance and Modern Science: Situation in Astronomy, Chemistry, Medicine and Biology, Situation in Physics and Mathematics, Galileo Galilei, Newton; The Age of Enlightenment: Astronomy, Mathematics and Physics in the 18th Century; Industrial Revolution and Science; Contemporary Science; The Einstein Revolution, Quantum Theory, and the Birth of Atomic Physics
The Aim of the Course	a) Explaining the roots of Chemistry (Manufacturing, Philosophy, Alchemy, Religion) and the relationship of chemical crafts in ancient civilizations (Egypt, Roman, Indian, Chinese, Arabian, Greek) with Alchemy and the development process of Chemistry from past to present. b) To explain in detail the science of chemistry and the development of the chemical industry from the ancient times to the present.
Course Level	Lessons will be given remotely via online education. The lecture notes of the lecturer and the books, articles and similar resources will be used as the source.
Course Language	Bachelor degree
Teaching method	Türkçe
Teaching Staff of the Course	(X) Formal () Online () Mixed/Hybrid
Prerequisite Course(s) of the Course	Prof. Dr. Mustafa SAÇMACI
Learning Outcomes from the Course	-
Course Catalog Description (Content)	<ol style="list-style-type: none">1. Be able to have information about the historical development of science.2. Understand the importance of chemistry in the history of science.3. Can learn the development of chemistry departments.4. Can learn about old chemical industry products.5. Can learn the development of the chemical industry and compare new products with old ones.

COURSE CONTENT

Week	Theory	Practice/Laboratory
1	Chemical Science and historiography	
2	The roots of chemistry	
3	BC Chemistry practice and written sources	
4	BC chemistry theories	
5	Comparison of Alchemy and Chemistry	
6	Alchemical history	
7	Lavoisier era	

8	Historical development of the periodic system	
9	Development of chemistry departments	
10	Former Chemical Industry products and productions	
11	Development of the chemical industry	
12	The art of experimentation and the technique of analysis	
13	Chemistry teaching and industrial development in Turkey	
14	Nobel Prize Winners in Chemistry	
15	Final Exam	

Course Learning Resources

1. Kimya Tarihi, Prof. Dr. Zeki Tez, Nobel Yayın Dağıtım, 2000.
2. Genel Kimya, Raymond Chang, Kenneth A. Goldsby Palme Yayıncılık, 2014.

ASSESSMENT CRITERIA

Work Activities During the Semester	Number	Contribution
Homework	2	%40
Practice	-	-
Forum/ Discussion Application	-	-
Short Exam (Quiz)	3	%60
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
Attending the Class	14	2	28
Self Study	1	3	3
Brainstorming	5	1	5
Reading	3	1	3
Homework	2	1	2
Quiz	3	1	3
Self Study for Quiz	3	1	3
Final Exam	1	1	1
Preparation for the Final Exam	1	3	3
Total Workload			51
Total Workload / 25 (s)			51/25
ECTS Credits of the Course			2.04 \cong 2
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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