

TOROS ÜNİVERSİTESİ

Faculty Of Engineering
Electrical And Electronics Engineering (English)

Course Information

CHEMISTRY FOR ENGINEERS					
Code	Semester	Theoretical	Practice	National Credit	ECTS Credit
		Hour / Week			
CHM101	Fall	3	0	3	3

Prerequisites and co-requisites	
Language of instruction	English
Type	Required
Level of Course	Bachelor's
Lecturer	Asst. Prof. Ali Kemal HAVARE
Mode of Delivery	Face to Face
Suggested Subject	
Professional practise (internship)	None
Objectives of the Course	To teach the student the fundamental principles of chemistry.
Contents of the Course	Periodic table, Atomic theory, Chemical reactions, Chemical bonds

Learning Outcomes of Course

#	Learning Outcomes
1	Ability to apply mathematics, science and engineering knowledge and experience to real world problems.
2	Ability to design and execute experiments and analyze the results.
3	Ability to identify engineering problems and suggest solutions.
4	Ability to communicate, express himself freely and develop new ideas.

Course Syllabus

#	Subjects	Teaching Methods and Technics
1	Matter: Its Properties and Measurement	Lecture
2	Atoms and the Atomic Theory	Lecture
3	Chemical Compounds	Lecture
4	Chemical Reactions	Lecture
5	Introduction to Reactions in Aqueous Solutions	Lecture
6	Gases	Lecture
7	Thermochemistry	Lecture
8	Midterm exam	
9	Electrons in Atom	Lecture
10	The Periodic Table and Some Atomic Properties	Lecture
11	Chemical Bonding I: Basic Concepts	Lecture
12	Chemical Bonding II: Additional Aspects	Lecture
13	Intermolecular Forces: Liquids and Solids	Lecture
14	Solutions and Their Physical Properties	Lecture

15	Review	
16	Final Exam	

Course Syllabus

#	Material / Resources	Information About Resources	Reference / Recommended Resources
1	P. H. Petrucci et al., General Chemistry: Principles and Modern Applications, Tenth Edition, ISBN 978-0-13-206452-1.		

Method of Assessment

#	Weight	Work Type	Work Title
1	40%	Mid-Term Exam	Mid-Term Exam
2	60%	Final Exam	Final Exam

Relationship between Learning Outcomes of Course and Program Outcomes

#	Learning Outcomes	Program Outcomes	Method of Assessment
1	Ability to apply mathematics, science and engineering knowledge and experience to real world problems.	1	1
2	Ability to design and execute experiments and analyze the results.	2	1
3	Ability to identify engineering problems and suggest solutions.	3	2
4	Ability to communicate, express himself freely and develop new ideas.	4	2

PS. The numbers, which are shown in the column Method of Assessment, presents the methods shown in the previous table, titled as Method of Assessment.

Work Load Details

#	Type of Work	Quantity	Time (Hour)	Work Load
1	Course Duration	14	3	42
2	Course Duration Except Class (Preliminary Study, Enhancement)	14	3	42
3	Presentation and Seminar Preparation	0	0	0
4	Web Research, Library and Archival Work	0	0	0
5	Document/Information Listing	0	0	0
6	Workshop	0	0	0
7	Preparation for Midterm Exam	0	0	0
8	Midterm Exam	1	1	1
9	Quiz	0	0	0
10	Homework	0	0	0
11	Midterm Project	0	0	0
12	Midterm Exercise	0	0	0
13	Final Project	0	0	0
14	Final Exercise	0	0	0
15	Preparation for Final Exam	1	4	4
16	Final Exam	1	1	1
				90