

# 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. Çağdaş ALLAHVERDİ
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
				<b>90</b>