TISHK INTERNATIONAL UNIVERSITY
FACULTY OF ENGINEERING
Department of CIVIL ENGINEERING,
2020-2021 Spring
Course Information for CHE 101 GENERAL CHEMİSTRY

Course Name:	GENERAL CHEMİSTRY

Code	Regular Semester	Theoretical	Practical	Credits	ECTS
CHE 101	2	2	2	3	4

Name of Lecturer(s)-Academic Title:	Mohammed Moayyad -
Teaching Assistant:	Jale Tahsen
Course Language:	ENGLISH
Course Type:	Main
Office Hours	2
Contact Email:	mohammed.moayyad@tiu.edu.iq Tel:07515243665
Teacher's academic profile:	Assistant Lecturer
Course Objectives:	To enhance students understanding in general chemistry
Course Description (Course overview):	Classification of the materials, atomic structure, periodic table, molecular structure, bonding in solid materials, structure of crystalline solids, mechanical properties of the materials, phase diagrams, thermal processing of metal alloys, properties and use of ceramics, glasses and composites, material selection, and design.

COURSE CONTENT

Week	Hour	Date	Topic
1	2	28/3-1/4/2021	Final Exam
2	2	4-8/4/2021	Final Exam
3	2	11-15/4/2021	Atoms and element
4	2	18-22/4/2021	Compounds and chemical bonds
5	2	25-29/4/2021	Midterm Exam
6	2	2-6/5/2021	Compounds and chemical bonds
7	2	9-11/5/2021	solution
8	2	16-20/5/2021	Midterm Exam
9	2	23-27/5/2021	Balancing chemical equations
10	2	30/5-3/6/2021	Balancing chemical equations
11	2	6-10/6/2021	chemistry of cement
12	2	13-17/6/2021	chemistry of cement
13	2	20-24/6/2021	Final Exam

COURSE/STUDENT LEARNING OUTCOMES

1	To give fundamentals of general chemistry
2	To make students familiar with atom
3	To make students familiar with chemical bonds
4	To make students familiar with solutions
5	Apply these knowledge in the field of civil engineering.

COURSE'S CONTRIBUTION TO PROGRAM OUTCOMES

(Blank : no contribution, I: Introduction, P: Profecient, A: Advanced)

	Program Learning Outcomes	Cont.
1	Apply principles of mathematics, science, and engineering	I
2	Design and conduct experiments, as well as analyze and interpret data accurately.	P
3	Design an engineering system, component, or process to meet desired industrial needs.	A
4	Identify, formulate and solve complex engineering problems	P
5	Apply, in design and construction, the most modern design codes, standards and specifications such as; AISC, ACI, ASCE 7, IBC, etc.	
6	Use the techniques, skills, and modern engineering tools, such as surveying instruments, and designing software that are necessary for engineering practices.	
7	Apply knowledge and skills in construction project management and recognition of international standards and methodologies	
8	Manage to work with multi-disciplinary teams and communicate effectively.	
9	Identify the moral values that ought to guide the Civil Engineering profession and resolve the moral issues in the profession.	
10	Apply the principles of sustainable development in their professional duties which go in line with the paramount safety, health and welfare of the public.	
11	Analyze the impact of engineering solutions in a global and social context	
12	Identify the need and have the ability to engage in lifelong learning and knowledge of contemporary issues.	

Prerequisites (Course Reading List and References):	General chemistry, the essential concepts by Raymond Chang, 5th edition.
Student's obligation (Special Requirements):	Course book

Weekly Laboratory/Practice Plan:

Week	Hour	Date	Topics
1	2	28/3-1/4/2021	introduction
2	2	4-8/4/2021	Safety in Lab
3	2	11-15/4/2021	Safety in Lab
4	2	18-22/4/2021	preparation of solution
5	2	25-29/4/2021	preparation of solution
6	2	2-6/5/2021	recrystalization
7	2	9-11/5/2021	recrystalization
8	2	16-20/5/2021	recrystalization
9	2	23-27/5/2021	titration
10	2	30/5-3/6/2021	titration
11	2	6-10/6/2021	titration
12	2	13-17/6/2021	review
13	2	20-24/6/2021	final exam

Course Book/Textbook:	General chemistry, the essential concepts by Raymond Chang, 5th edition.
Other Course Materials/References:	General chemistry, the essential concepts by Raymond Chang, 5th edition.
Teaching Methods (Forms of Teaching):	Lectures, Excersises, Presentation, Seminar, Project

COURSE EVALUATION CRITERIA

Method	Quantity	Percentage (%)
Attendance	1	2
Quiz	1	5

Homework	1	3
Midterm Exam(s)	1	25
Laboratory	1	25
Final Exam	1	40
Total		**100**

Examinations: Essay Questions, True-False, Fill in the Blanks, Multiple Choices

Extra Notes:

ECTS (ALLOCATED BASED ON STUDENT) WORKLOAD

Activities	Quantity	Workload Hours for 1 quantity*	Total Workload
Theoretical Hours	13	2	26
Practical Hours	13	2	13
Final Exam	1	8	8
Attendance	1	2	2
Quiz	1	4	4
Homework	1	364	364
Midterm Exam(s)	1		0
Laboratory	1		0
Total Workload			**417**
ECTS Credit (Total workload/25)			**16.68**

Peer review

Signature:	Signature:	Signature:
Name:	Name:	Name:
Lecturer	Head of Department	Dean