BDB106 - Basıc Chemıstry II

Course Name	Code	Term	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	ECTS
Basic Chemistry II	BDB106	1.Semest /1.Spring	2	0	2	4

Prerequisites	None
Language of Instruction	Turkish
Course Type	Compulsory
Learning and Teaching Techniques of The Course	Lecture, Question-answer, Laboratory
Instructor(s)	
Goal	It is to develop the ability to comprehend the basic knowledge of the problem, problem solving and correct thinking.
Learning Outcomes	1. Learns what are interactions between molecules and their effects on physical properties of compounds 2. Learns reversible reactions, heterogeneous equilibrium, equilibrium constants, Le Chatelier's rule, factors affecting equilibrium 3. Learns acid-base definitions (Arrhenius, Bronsted-Lowry and Lewis definitions), strength in acids and bases, neutralization 4. Resolution balances. Have information about system and its variables, thermodynamic laws, reaction internal energy, enthalpy, entropy, free energy, Hess law 5. Explains the types of isomers in organic chemistry and physical and chemical properties of organic compounds
References	1. General Chemistry: Principles and Modern Applications, Petrucci, Harwood, Herring Co., New York. Çeviri Editörleri: Tahsin Uyar, Serpil Aksoy; Palme Yayıncılık. 2. Genel Kimya Temel Kavramlar, Raymond Chang (Eser Sahibi), Tahsin Uyar (Çevirmen), Serpil Aksoy (Çevirmen), Recai İnam (Çevirmen) Palme Yayıncılık, 2006.

Course Outline Weekly:

WEEKS	TOPICS
1. Week	Chemical bonding and bonding theories Liquids, solids and intermolecular forces
2. Week	Chemical kinetics Preliminary information about laboratory introduction and experimental studies
3. Week	Principles of chemical balance The effect of concentration on reaction rate
4. Week	Principles of chemical balance The effect of temperature on reaction rate
5. Week	Acids and bases Chemical balance Preparation test of buffer solutions
6. Week	Acids and bases Titration experiments
7. Week	Acid-base and solubility balances Soap making
8. Week	**MIDTERM EXAM**
9. Week	Acid-base and solubility balances
10. Week	Introduction to organic chemistry: Saturated hydrocarbons Organic functional group analysis
11. Week	Organic reactions and functional groups Organic functional group analysis
12. Week	Aromatic Compounds
13. Week	Alcohols, Ethers Oxidation of Alcohols Lucas Test experiment
14. Week	Aldehydes and ketones
15. Week	Carboxylic acids, esters Amines and amides Making aspirin

Student Work Load Table

Activities	Number	Duration	Total Work Load
Course Duration	14	2	28
Laboratory	14	2	28
Practice			
Field Study			
Study Time Of Outside Of Class (Pre-Study, Practice, Etc.)	14	2	28
Presentations (Video shoot/Poster preparation/Oral presentation, Etc.)			
Seminars			
Project			
Case study			
Role playing, Dramatization			
Writing articles, Critique			
Time To Prepare For Midterm Exam	1	6	6
Final Exam Preparation Time	1	10	10
Total Work Load (hour) / 25(s)	100 / 25=4		
ECTS	**4**		

Evaluation System

Mid-Term Studies	Number	Contribution
Midterm exams	1	25%
Quiz		
Laboratory	1	25%
Practice		
Field Study		
Course Internship (If There Is)		
Homework's		
Presentation and Seminar		
Project		
Other evaluation methods		
Total Time To Activities For Midterm		50
Final works		
Final	1	50%
Homework		
Practice		
Laboratory		
Total Time To Activities For Midterm		50
Contribution Of Midterm Studies On Grades		40%
Contribution Of Final Exam On Grades		60%
Total		100

The relationship between learning outcomes and the program qualifications of the courses

Program Qualifications	Learning outcomes				
	L.O.1	L.O. 2	L.O.3	L.O.4	L.O.5
1. Enables the students to use theoretical knowledge based on basic and social sciences in practice.		4	4	4	
2. Has the ability to use equipments and information Technologies required for the professional practice efficiently.	3	3	3	3	3
3. Knows his rights, duties and responsibilities towards the society, colleagues, and other professions, individuals and patients, and learns how to behave in harmony with the professional ethical rules.		3			
4. When confronted with problems within any field of Nutrition and Dietetics, has the ability to observe, diagnose, assess, report and come up with solutions thanks to their up-to-date knowledge and skills.			4	4	
5. Gains efficient working skills based on the principles of effective communication, responsibility, solution-oriented working in diciplinary and interdisciplinary conditions.	4	4	4	4	
6. Has the ability to make a plan for a research individually or as part of a team, make experiments, collectand analyze the data, interpret and write a report by using theoretical / practical knowledge and skills gained in the field of Nutrition and Dietetics.	4	4	4	4	
7. Develops suggestions for healty/sick individuals and those at risk considering their lifelong diet.	3				
8. Gains knowledge to contribute to the diet plans and politics to be developed based on the needs of the individuals and the society.			3		
9. Improves themselves by following the latest advances in their profession nationally and internationally, and acquires awareness in lifelong learning.		3			

Contribution to the level of proficiency: 1. Lowest, 2. Low / Medium, 3. Average, 4. High, 5. Excellent