

**BDB105 - Basic Chemistry I**

Course Name	Code	Term	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	ECTS
Basic Chemistry I	BDB105	1. Semester/1.Autumn	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	<ol style="list-style-type: none"> <li>1. Balances chemical reactions and makes calculations about chemical reactions, learns the properties and measurement of the material</li> <li>2. Learns atomic electronic structure and atomic theory of atoms</li> <li>3. Establishes relationships between elements, atomic numbers, position of the periodic table and physical / chemical properties of the elements.</li> <li>4. Converts different units of concentration to each other; Prepares solution at known concentration and calculates the concentration of solutes and the amount of a substance in solution</li> </ol>					
References	<ol style="list-style-type: none"> <li>1. General Chemistry: Principles and Modern Applications, Petrucci, Harwood, Herring Co., New York. Çeviri Editörleri: Tahsin Uyar, Serpil Aksoy; Palme Yayıncılık.</li> <li>2. Genel Kimya Temel Kavramlar, Raymond Chang (Eser Sahibi), Tahsin Uyar (Çevirmen), Serpil Aksoy (Çevirmen), Recai İnam (Çevirmen) Palme Yayıncılık, 2006.</li> </ol>					

**Course Outline Weekly:**

WEEKS	TOPICS
1. Week	Properties and measurement of the material Preliminary information about laboratory presentation and experimental studies
2. Week	Atoms and atomic theory Determination of the specific heat of a metal
3. Week	Chemical compounds Determination of the molecular weight of a volatile liquid
4. Week	Chemical reactions Solution preparation,
5. Week	Introduction to aqueous solution reactions pH detection
6. Week	Aqueous solution reactions Strong acid strong base titration
7. Week	Gases and simple gas laws Salt in cheese
8. Week	<b>MIDTERM EXAM</b>
9. Week	Gases and simple gas laws Vitamin C in fruit juice
10. Week	Thermochemistry Determination of lactic acid in milk
11. Week	Atomic electron structure Soap making
12. Week	Periodic table and some atomic properties
13. Week	Periodic table and some atomic properties
14. Week	Chemical bonding and bonding theories Liquids, solids and intermolecular forces
15. Week	Chemical bonding and bonding theories Liquids, solids and intermolecular forces

### 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
<b>Total Work Load ( hour) / 25(s)</b>	100 / 25=4		
<b>ECTS</b>	<b>4</b>		

### 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		
<b>Total Time To Activities For Midterm</b>		50
<b>Final works</b>		
Final	1	%50
Homework		
Practice		
Laboratory		
<b>Total Time To Activities For Midterm</b>		50
Contribution Of Midterm Studies On Grades		%40
Contribution Of Final Exam On Grades		%60
<b>Total</b>		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
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. 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**