

**BDB201 - Nutritional Biochemistry I**

Course Name	Code	Term	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	ECTS
NUTRITIONAL BIOCHEMISTRY I	BDB201	3. Semester/ Autumn	3	0	0	4
Prerequisites	None					
Language of Instruction	Turkish					
Course Type	Compulsory					
Learning and Teaching Techniques of The Course	Lecture Question & Answer Discussion					
Instructor(s)						
Goal	The aim of this course is to explain the effects of macro nutrients on nutrition and metabolism and their relationships.					
Learning Outcomes	1. The chemical structures of living organisms and chemical events that occur throughout their lives, and learn macronutrients and hormones. 2. Understands homeostatic mechanisms in biological systems. 3. Understands carbohydrate, lipid and protein metabolism, their use by cells, the ways of conversion to energy, 4. Understands the integration steps of macro nutrients. 5. Understands the effect of macronutrients related to metabolic disorders.					
References	1. Aksoy, M. Beslenme Biyokimyası, Hatiboğlu Yayın Evi, 2010. Ankara. 2. Gözükara EM. Biyokimya, Nobel Kitapevi 5. Baskı, 2010, Ankara. 3. Pamela C.Champe, Richard A. Harvey , Denise R. Ferrier.Lippincott Biochemistry Ulukaya E. (çeviri editörü).3.Baskı. 4. Champe P.C. Lippincott's illustrated reviews:Biochemistry / Pamela C. Champe, Richard A. Harvey; technical consultant F. Vella;computer graphics: Michael Cooper. 6th edition. Philadelphia: J.B. Lippincott Company, 2014. 5. Harper H.A. Harper's biochemistry. 21st edition.California : Appleton & Lange, 2006.					

**Course Outline Weekly:**

WEEKS	TOPICS
1. Week	Introduction to nutritional biochemistry and metabolism
2. Week	Carbohydrate metabolism
3. Week	Carbohydrate metabolism
4. Week	Carbohydrate metabolism
5. Week	Carbohydrate metabolism
6. Week	Protein metabolism
7. Week	Protein metabolism
8. Week	<b>MIDTERM EXAM I</b>
9. Week	Protein metabolism
10. Week	Lipid metabolism
11. Week	Lipid metabolism
12. Week	Lipid metabolism
13. Week	Metabolic Integration
14. Week	<b>MIDTERM EXAM II</b>
15. Week	Nutrients in toughness and starvation metabolism

**Student Work Load Table**

Activities	Number	Duration	Total Work Load
Course Duration	13	3	39
Laboratory			
Practice			
Field Study			
Study Time of Outside of Class (Pre-Study, Practice, Etc.)	13	2	26
Presentations (Video shoot/Poster preparation/Oral presentation, Etc.)			
Seminars			
Project			
Case study			
Role playing, Dramatization			
Writing articles, Critique			
Time to Prepare for Midterm Exam	2	10	20
Final Exam Preparation Time	1	8	16
<b>Total Work Load (hour) / 25(s)</b>	101/ 25=4.04		
<b>ECTS</b>	<b>4</b>		

**Evaluation System**

<b>Mid-Term Studies</b>	<b>Number</b>	<b>Contribution</b>
Midterm exams	2	100%
Quiz		
Laboratory		
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>		100
<b>Final works</b>		
Final	1	100%
Homework		
Practice		
Laboratory		
<b>Total Time to Activities for Midterm</b>		100
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**

<b>Program Qualifications</b>	<b>Learning outcomes</b>				
	<b>L.O.1</b>	<b>L.O. 2</b>	<b>L.O.3</b>	<b>L.O.4</b>	<b>L.O.5</b>
1. Enables the students to use theoretical knowledge based on basic and social sciences in practice.	5	4	4	4	4
2. Has the ability to use equipment and information Technologies required for the professional practice efficiently.	1	1	1	1	1
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.	2	2	2	2	4
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	3	4	5	5
5. Gains efficient working skills based on the principles of effective communication, responsibility, solution-oriented working in disciplinary and interdisciplinary conditions.	4	5	5	4	4
6. Has the ability to make a plan for a research individually or as part of a team, make experiments, collect and analyze the data, interpret and write a report by using theoretical / practical knowledge and skills gained in the field of Nutrition and Dietetics.	5	5	5	5	5
7. Develops suggestions for health/sick individuals and those at risk considering their lifelong diet.	5	5	5	5	5
8. Gains knowledge to contribute to the diet plans and politics to be developed based on the needs of the individuals and the society.	5	5	5	5	5
9. Improves themselves by following the latest advances in their profession nationally and internationally, and acquires awareness in lifelong learning.	5	5	5	5	5

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