BDB102- Medical Biology and Genetic

Course Name	Code	Term	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)	ECTS
Medical Biology and Genetic	BDB102	2.Semester/Spring	2	0	0	3
Prerequisites	None					
Language of Instruction	Turkish					
Course Type	Compulsory					
Learning and Teaching Techniques of The Course	Expression					
Instructor(s)						
Goal	Ability to have knowledge about molecular biology, cell biology and basic genetic concepts and to adapt the knowledge gained to nutrition and dietetics.					
Learning Outcomes	1. Defines the cell and its general properties 2. Understands the general structure of nucleic acids and the basic structure of chromosomes 3. Have knowledge about central dogma and gene expression control 4. Defines cell division, cell cycle, autosome and gonozoma inheritance patterns					
References	1. Alberts, B., Johnson, A, Lewis, J., Raff, M;,Roberts, K., Walter, P., Molecular Biology of the Cell, 2007 2. Güneş, H.V., Moleküler Hücre Biyolojisi, İstanbul Tıp Kitabevi, 2017 3. Cooper M.G., Hausman R. E., 7. Baskı 2016					

Course Outline Weekly:

WEEKS	TOPICS
1. Week	Introduction: Biology science, birth of molecular biology
2. Week	Prokaryotic and eukaryotic cells
3. Week	Cell Organelles
4. Week	Cell skeleton
5. Week	Mitochondria and energy production
6. Week	General structure and packaging of DNA
7. Week	Replication- Transcription
8. Week	**MIDTERM EXAM**
9. Week	Ribosomes and protein synthesis
10. Week	Control of gene expression
11. Week	Chromosome structure and cell cycle
12. Week	Mitosis and meiosis
13. Week	Heredity models
14. Week	An overview
15. Week	Discussion

Student Work Load Table

Activities	Number	Duration	Total Work Load
Course Duration	14	2	28
Laboratory			
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	7	7
Final Exam Preparation Time	1	12	12
Total Work Load (hour) / 25(s)	75 / 25=3		
ECTS	**3**		

Evaluation System

Mid-Term Studies	**Number**	**Contribution**
Midterm exams	1	100%
Quiz		
Laboratory		
Practice		
Field Study		
Course Internship (If There Is)		
Homework's		
Presentation and Seminar		
Project		
Other evaluation methods		
Total Time To Activities For Midterm		100
Final works		
Final	1	100%
Homework		
Practice		
Laboratory		
Total Time To Activities For Midterm		100
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**
1. Enables the students to use theoretical knowledge based on basic and social sciences in practice.			3	3
2. Has the ability to use equipments and information Technologies required for the professional practice efficiently.				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.	4			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.	3			3
5. Gains efficient working skills based on the principles of effective communication, responsibility, solution-oriented working in diciplinary and interdisciplinary conditions.				3
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
7. Develops suggestions for healty/sick individuals and those at risk considering their lifelong diet.			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	
9. Improves themselves by following the latest advances in their profession nationally and internationally, and acquires awareness in lifelong learning.				5

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