Course Name	Code	Semester	Theoric (hours/week)	Practice (hours/week)	Labratory (hours/week)	AKTS
Basic Concepts in Biochemistry	MTP 505	2.Semester/ Spring	3	0	0	5
Prequisites	None					
Language	Turkish					
Type	Compulsory					
Teaching Methods	Interactively, Slide Presentation, If necessary,accessing data sources via internet					
Instructor(s)						
Course objectives	It is expected to gain protein structure, chemical and physical properties of proteins, chemical reactions of amino acids, proteins and bioinformatics, basic concepts on types and functions of proteins, coding of collagen, elastin, traspozan and glycoproteins, chaperon proteins, enzymes and enzyme kinetics, cytochrome p450 and nitric oxide synthesis, bioenergetic and oxidative metabolism, lipid metabolism, carbohydrate metabolism, amino acid and protein metabolism, hormone biochemistry.					
Course Learning Outcomes	Students could comprehend and improve thoroughly the information about biological system in order to research in scientific, social and medical area in relation to knowledge gained in during master degree and are able to correlate to the links.					
References	1. Nelson DL ve Cox MM.Lehninger Biochemistry. Ed. Kılıç N. Palme Press , 2005 2. Montgomery, Conway, Spector, Chappel. Biochemistry Ed. Altan N. Palme Press,2000 3. Lippincott Biochemistry, 3. Baskı. Editors: Champe PC, Harvey RA, Ferrier DR.					

Weekly course topics

Weeks	Topics
1. Week	Amino acid structure of proteins
2. Week	Physical and chemical properties of proteins
3. Week	Chemical reactions of amino acids
4. Week	Bioinformatics and proteins
5. Week	Types and function of proteins
6. Week	Kollagene, elastin
7. Week	Transposon and coding of glycoproteins
8. Week	Chaperones
9. Week	Enzymes and their kinetics
10. Week	Cytochrome p450 and nitric oxide synthesis
11. Week	Bioenergetics ve oxidative metabolism
12. Week	Metabolism of lipids and carbohydrates
13. Week	Metabolism of amino acids and proteins
14. Week	Biochemistry of hormones

Student Workload Table

Activities	**Number**	**Duration**	**Total work load**
Course Duration (X14)	14	3	42
Laboratory			
Practice			
Field Study			
Study Time Of Outside Of Class (Pre-Study, Practice, Etc.)	14	4	56
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	7	7
Total Work Load (hour) / 25(s)	**125/25=5**		
ECTS	**5**		

Evaluation System

Semester Work	**The number of**	**Contribution**
Midterm Exam	1	40%
Half Year End Exam	1	60%
Laboratory		
Application		
Field Work		
Class-Specific Internship (If Any)		
Assignments		
Presentations and Seminars		
Projects		
Other		
Do your homework		
Application		
Laboratory		
The sum of the grades		**100**

COURSE LEARNING OUTCOMES AND A RELATIONSHIP WITH PROGRAM QUALIFICATIONS

No.	PROGRAM QUALIFICATIONS	LO1
1	Degree level qualification at the level of expertise in the field of molecular medicine based on up-to-date information, enhances and deepens.	5
2	Requires a level of knowledge of the field of molecular medicine technologies, technical equipment and machinery and tools that are specific to the field information	4
3	Molecular Medicine is having in the field of information integrate with information from different disciplines to create new information, comments, analysis and synthesis by using different research methods and propose solutions.	4
4	The report of his research the author.	4
5	Empirical research plans.	3
6	Molecular Medicine in matters requiring expertise in the field of fiction, propose solutions, and solves the problems, assesses the results obtained when necessary.	4
7	Molecular Medicine and public health-related priority issues Area scientific clinical and/or descriptive research/presentations/publication.	3
8	The information related to the field of molecular medicine evaluates and directs the learning a critical approach.	4
9	Professional development related to the field of molecular medicine and performs studies the principles of life-long learning.	4
10	Current developments in the field of Molecular Medicine information, and their work in the same field or with groups other than the written, oral and Visual systematically as he discusses and shares.	3
11	The vocational and professional environment, social relationships, and those relationships are a critical perspective, norms and makes the need to improve them.	4
12	Collection of data related to the field of molecular medicine, towards restriction, interpretation, announcing social, scientific and ethic values in oversees and teaches these values.	3
13	The basic unit of society, current developments in the field of Molecular Medicine is to cover the national children and family values, and evaluates in line with the realities of the country.	4
14	Ethical principles and the importance of the individual and of the community for the Ethics Committee, ethics.	4
15	Molecular Medicine in the field with strategy, policy and implementation plans and results obtained within the framework of the quality processes.	3
Contribution to the level of proficiency: 1. Lowest, 2. Low / Medium, 3. Average, 4. High, 5. Excellent		