FTR136 - Biochemistry

Course Name	Code	Term	Theory (hours/week)	Application (hours/week)	Laboratory (hours/week)		ECTS
Biochemistry	FTR 136	1.year/2.term fall	2	-	-		4
Prequisites							
Course language	Turkish						
Course type	Elective						
Learning and teaching strategies	Lecture						
Instructor (s)							
Course objective(Aim of course)	Aims to teach basic biochemical concepts necessary about Health Siciences						
Learning outcomes	1. Knows the structures and functions of biomolecules and hormones. 2. Knows signal transduction mechanisms and biomolecules playing roles in signal transduction. 3. Knows how metabolism works in accordance with the bioenergetic principles.						
References	Richard A. Harvey ; Ferrier, Denise R. ; çev. ed. Engin Ulukaya. Biyokimya : lippincott görsel anlatımlı çalışma kitapları. İstanbul : Nobel Yayınevi, 2015						

Course outline weekly:

Weeks	Topics
1. Week	Chemical bonds, water and buffer systems
2. Week	Amino acids and proteins
3. Week	Enzymes and coenzymes
4. Week	Carbohydrates
5. Week	Lipids and biological membranes
6. Week	Signal transduction mechanisms
7. Week	Hormones
8. Week	Midterm exam
9. Week	Carbohydrate metabolism
10. Week	Lipid Metabolism
11. Week	Amino acid and Protein Metabolism
12. Week	Bioenergetics and basic principles of metabolism
13. Week	Integration of metabolism, Basic concepts in clinical biochemistry
14. Week	An overview
15. Week	An overview

ECTS (Student Work Load Table)

Activities	Number	Duration	Total Work Load
Course Duration (X14)	14	2	28
Laboratory			
Practice			
Field Study			
Study Time Of Outside Of Class (Pre-Study, Practice, Etc.)	14	3	42
Presentations (Video shoot/Poster preparation/Oral presentation, Etc.)			
Seminars	1	10	10
Project			
Case study			
Role playing, Dramatization			
Writing articles, Critique			
Time To Prepare For Midterm Exam	1	8	8
Final Exam Preparation Time	1	12	12
Total Work Load (hour) / 25(s)	100/25=4		
ECTS	**4**		

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**
1-Acquire proficient infrastructure related to the field of Physiotherapy and Rehabilitation, gain the ability to use theoretical and practical knowledge and skills in this field.	5	5	5
2-Identify, define the factors affecting health and gain problem-solving skill by using the information they have; plan and implement a treatment and exercise program with appropriate evidence-based methods and new techniques.	3	3	3
3-Gain the ability to use information technologies effectively, as well as the ability to select and use modern tools, techniques and agents necessary for physiotherapy and rehabilitation applications.			
4-Design individual and multidisciplinary research, keep records, prepare reports, analyze and interpret results for quality service and research in health sciences.			
5-They conduct a literature search to access the information by using evidence-based databases and information sources.			
6-Gain autonomy in interdisciplinary and individual studies, ability to work effectively and take responsibility and awareness of the universal and social effects of their professional practice.			
7-Adopt life-long learning; contribute to quality improvement, field-related training and introductory programs and exhibit their professional behavior at national and international level.			
8-Have deontological and ethical awareness in professional researches and applications.			

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