

Course Title	Code	Semester	Theoretical (hours/week)	Practice (hours/week)	Laboratory (hours/week)	ECTS
Biochemistry	HEM113	1. Semester / Fall	2	0	0	3
Prerequisites	None					
Language of Instruction	Turkish					
Course Type	Compulsory					
learning and teaching techniques of the Course	Laboratory Studies, Lecture, Discussion, Question & Answer, Observation, Team/ Group Work, Experiment, Practise, Brain Storming, Other					
Instructor(s)						
Goal	The aim of the course is to deal with the quantitative and qualitative analysis of body fluids such as blood and urine. The changes in the composition of body constituents under pathological conditions are discussed.					
Learning Outcomes	1. The biological elements are introduced 2. Macromolecules are introduced 3. Structure and functions of Carbohydrates, Lipids, Proteins, Nucleic acids and Vitamins are described 4. Normal and abnormal metabolism are explained 5. To be taught taking samples and sending to laboratory 6. Perspective to laboratory results in the pathological cases 7. Nutritional biochemistry 8. To be taught free radicals and antioxidant systems					
References	1-Martin D.W., Mayes P.A., Rodwell V.W., Harper's Review of Biochemistry. ISBN 0-87041-036-9, Lange Medical publications, 1981, Los Altos, California. 2-Yenson M. İnsan Biyokimyası. ISBN 975-486-009-2, Beta basım yayım dağıtım A.Ş.1988, İstanbul, Turkey. 3-Champe P.C., Harvey R.A. Biyokimya, (Çev: Gür E ve Diğerleri) Nobel Tıp kitabı, 1997, İstanbul, Turkey. 4- Aktümsek A, Nurullahoglu U. Pratik Biyokimya. ISBN 975-543-042-3, Mimoza, 1996, Konya, Turkey. 5- Yöntem M. Pratik Biyokimya. ISBN 975-8201-61-1, Bizim büro basımevi, 2003, Ankara, Turkey.					

#### Course Outline Weekly:

WEEKS	TOPICS
1. Week	Introduction to Biochemistry/ Laboratory rules
2. Week	Metabolism and biochemical reactions
3. Week	Biological elements and biological functions
4. Week	Biochemistry of blood and urine/ Rules in obtaining samples
5. Week	Introduction to macromolecules/ Functions and structures of carbohydrates
6. Week	Lipids and biological functions
7. Week	Proteins and biological functions
8. Week	<b>MIDTERM</b>
9. Week	Vitamins and biological functions
10. Week	Nucleic acids and biological functions
11. Week	Hormones and biological functions
12. Week	Nutritional biochemistry
13. Week	Digestive biochemistry
14. Week	Absorption biochemistry
15. Week	<b>AN OVERVIEW</b>

**ECTS (Student WorkLoad Table)**

Activities	Number	Duration	Total Workload
Length of course	14	2	28
Laboratory			
Practice			
Field Study			
Study time outside of classroom (Free-study/Group work/Pre-study)	14	1	14
Presentation (Video recording/Poster preparation/Focus Group Interview/Questionnaire/Observation and Writing reports)			
Seminar Preparation			
Project			
Case Study			
Role-play			
Writing articles-Make criticals			
Time to prepare for midterm exams	2	10	20
Time to prepare for final exam	1	13	13
<b>Total Work Load (hour) / 25(h)</b>			<b>75/25=3</b>
<b>Course ECTS</b>			<b>3</b>

**Evaluation System**

Workload within semester	Number	Contribution
Midterm Exam	1	%40
Quiz		
Laboratory		
Practice		
Field Study		
Course Internship (If there is)		
Assignments		
Presentations and Seminars		
Projects		
Other		
<b>Total Semester Work Load</b>	<b>1</b>	<b>%40</b>
<b>End-of-year Work Load</b>		
Final Exam	1	%60
Assignments		
Practice		
Laboratory		
<b>Total End-of-year Work Load</b>	<b>1</b>	<b>%60</b>
<b>TOTAL</b>	<b>2</b>	<b>%100</b>

**The Relationship Between Learning Outcomes and the Program Qualifications of the Courses**

Program Qualifications	Learning Outcomes				
	LO1	LO2	LO3	LO4	LO5
1. Have the knowledge and skills to fulfill their professional roles and functions.	5	5	5	5	5
2. Performs, evaluates and records nursing practices toward professional principles and standards.				5	
3. Practice the health care needs of the individual, family and society with a holistic approach, toward the nursing process.					
4. Communicates effectively with the individual, family, community and health team members.					
5. Performs professional practices toward current scientific data by using information and maintenance technologies.	4	4	4	5	5
6. Have a foreign language proficiency to reach scientific information and communicate effectively.					
7. Behaves in accordance with professional, cultural and ethical values in nursing practices.					
8. Considers the relevant laws, regulations and legislation in nursing practices					
9. Uses the learning-teaching and management process in nursing practices.	5				4
10. Uses lifelong learning, problem solving, critical thinking and career planning skills to contribute to professional development.					
11. With the awareness of social responsibility, takes part in research, projects and activities in cooperation with the health team and other disciplines.					
12. Contributes to the provision and development of safe and quality health care.					

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