Course Syllabus

Code - Course Title	**KİM284 - Biochemistry II**
Course Type	IV. SEMESTER
Laboratory + Practice	4+1
ECTS	**5.0**
Language of Instruction	Türkçe
Course Type	Required Courses
Course Instructor(s)	PROF. DR. ZERRİN SELLER, PROF. DR. FİLİZ ÖZDEMİR

Mode of Delivery	Face to face
Prerequisites	There is no prerequisite or co-requisite for this course.
Courses Recomended	Biochemistry
Work Placement	Not Applicable

Course Syllabus

Weeks	Learning Outcomes	Topics	Teaching Methods
Week - 1		Carbohydrates, Biological materials used in biochemistry laboratories	
Week - 2		Carbohydrates, Identification of proteins and determination of total protein and albumin levels	
Week - 3		Carbohydrates,Denaturation and deproteinization of proteins	
Week - 4		Carbohydrates, Identification reactions of amino acids	
Week - 5		Lipids, Kidney function tests	
Week - 6		Lipids, Liver function tests	
Week - 7		Vitamins and Minerals, General tests for the identification of carbohydrates	
Week - 8		Electron Transport Chain and Oxidative Phosphorylation, Determination of blood glucose concentration	
Week - 9		Hormones, Tests related to lipid metabolism	
Week - 10		Hormones, Pregnancy test	
Week - 11		Hormones, Urinalysis	
Week - 12		Hormones, Urinalysis	
Week - 13		Hormones, General assessment	
Week - 14		Hormones, General evaluation	

Learning Outcomes

#	Learning Outcome
1	Will be able to explain general information about carbohydrates
2	Will be able to explain the digestion and absorption of carbohydrates
3	Will be able to explain glycolysis
4	Will be able to explain gluconeogenesis
5	Will be able to explain glycogen metabolism
6	Will be able to explain the pentose phosphate pathway in glucose oxidation
7	Will be able to explain the citric acid cycle
8	Will be able to explain general information about lipids.
9	Will be able to explain lipid biosynthesis.
10	Will be able to explain the oxidation of lipids.
11	Will be able to explain the integration of metabolism
12	Will be able to explain the electron transport chain.
13	Will be able to explain oxidative phosphorylation.
14	Will be able to explain vitamins.
15	Will be able to explain minerals.
16	Will be able to explain the endocrine system.
17	Will be able to explain thyroid hormones.
18	Will be able to explain the hormones that regulate calcium and phosphorus metabolism.
19	Will be able to explain pancreatic hormones.
20	Will be able to explain adrenal hormones.
21	Will be able to explain gonads and steroid hormones.
22	Will be able to explain hypothalamic and pituitary hormones.
23	Will be able to explain gastrointestinal system hormones.
24	Will be able to explain analysis examples
25	Will be able to explain the main anticoagulant substances
26	Will be able to explain protein recognition reactions
27	Explains the Biuret method
28	Will be able to explain the Bromcresol Green method
29	Will be able to explain the denaturation of proteins
30	Will be able to explain deproteinization
31	Will be able to explain the Ninhydrin test.
32	Will be able to explain the Xanthoprotein reaction.
33	Will be able to explain the Sulfur test.
34	Will be able to explain the tests that measure renal blood flow.
35	Will be able to explain the definition and classification of function tests.
36	Will be able to explain the determination of bilirubin levels.
37	Will be able to explain the Benedict test.
38	Will be able to explain the Molisch test.

Learning Outcomes

#	Learning Outcome
39	Will be able to explain the Iodine test.
40	Will be able to explain the Osazone test.
41	Will be able to explain the Hydrolysis test.
42	Will be able to explain other carbohydrate identification tests.
43	Will be able to explain non-enzymatic methods.
44	Will be able to explain enzymatic methods.
45	Will be able to explain the dehydration of glycerol.
46	Will be able to explain the binding of iodine to oleic acid.
47	Will be able to explain the determination of total cholesterol levels.
48	Will be able to explain the determination of β-hCG in urine.
49	Will be able to explain the biochemical analysis of urine.
50	Will be able to explain the microscopic analysis of urine.
51	Will be able to explain urine test strips.

Sustainable Development Goals

No content has been provided.

Course Theme

No content has been provided.

AKTS Workload

Activity	Duration (Hour)	Count	Workload
Teorik Derse Katılım	0	0	0
Sınıf Dışı Çalışma (Ön Hazırlık & Pekiştirme Amaçlı)	0	0	0
Ödevler	0	0	0
Proje - Rapor - Sunum Hazırlama	0	0	0
Ara Sınav Hazırlığı (sınav süresi dahil)	0	0	0
Final Sınavı Hazırlığı (sınav süresi dahil)	0	0	0
Uygulama (Laboratuvar, Müzik/Enstrüman Uygulaması, Atölye/Saha Çalışması vb.)	0	0	0
Staj Uygulaması	0	0	0
		Calculated ECTS	**0**

Assessment Method and Passing Requirements

No content has been provided.