

Theoretical and practical course plan form - Ilam University of Medical Sciences

Introduction to the course: General Biochemistry

Semester: The first academic year 2020-2021

School: Health Department: Biochemistry

- * Course name and number: General Biochemistry
- * Course and degree: Public Health
- * Day and time: Tuesday at 12 – 10
- * Venue: School of Health
- * Number and type of unit (theoretical / practical): 2 theoretical units
- * Prerequisite courses: No prerequisite
- * Name of the person in charge of the course (course instructor): Dr. Haqqani
- * Phone and contact days: 08412235727
- * Email address: haghani.bio@gmail.com
- * Office address: Biochemistry Department

General Objective of the Lesson: Understanding the Chemical Structure and Chemical Reactions of Vital Molecules in the Body

* **Specific or partial objectives of the lesson:** The specific objective is better to be written behaviorally (behavioral objective has the audience, behavioral verb, degree and criteria and conditions of performance)

- 1- The student should know the classification and chemical structure of important carbohydrates in the body (including mono, oligo and polysaccharides).
- 2- The student should know the classification and chemical structure of important body lipids (including fatty acids, acyl glycerols, phospholipids, etc.).
3. The student must learn the structure of all amino acids, proteins and enzymes.
4. The student should describe the chemical structure of organic bases, nucleosides, nucleotides and different types of nucleic acids.
5. The student should describe the categories and disorders related to the decrease and increase of vitamins.
- 6- The student should know the digestion and absorption of carbohydrates, glycolysis, gluconeogenesis and glycogen metabolism.
7. The student should explain the Krebs cycle and oxidative phosphorylation.

8- The student should know the digestion and absorption of lipids and amino acid metabolism.

9- The student should know the metabolism of nucleic acids briefly.

* **Student duties:** (Student homework during the semester)

1- Permanent and timely presence in the classroom

2- Necessary preparation to answer the oral questions raised from the previous sessions

3- Necessary preparation to answer the quizzes during the semester

* **Main resources of the course Main resources:** (By observing the principles of source writing and giving an address for their preparation, including library, bookstore, Internet ...)

1- Biochemistry for the nurse

2- Harper Biochemistry

* **Teaching method + teaching aids used:** lectures, questions and answers, PowerPoint, whiteboard

* **Methods and time of assessment and evaluation of the student and the bar related to each value B:**

Method	Score	Date	Time
Quiz	Each quiz is 0.5 points out of the total score	After the end of each season	Half an hour of class time
Mid-term	About 40% of the total score considering the number of quizzes	After teaching all three topics	Extra session
The end of the semester	About 60% of the total score considering the number of quizzes	Date set by the faculty	According to the set time

* In case of excessive justified absence, introduction to education office and delete of the lesson

Lesson rules and expectations from students

Schedule of presenting the general biochemistry curriculum for the first semester of the academic year 2020-2021

Session	Time	Topic	Lecturer	Necessary preparation of students before the start of the class
1	10-12	INTRODUCTION, CLASSIFICATION, NAMING, ISOMERY, SPINAL	Dr. Haqqani	

		STRUCTURE IN SUGAR, MONOSACARID		
2		Oligosaccharides, disaccharides, trisaccharides, hemopolysaccharides		Read the contents of the previous topics
3		Fatty acids, neutral fats, waxes		
4		Phospholipids Sphingolipids, lipoproteins, micelles and membranes		
5		Chemical structure of amino acids, peptides		
6		The first, second, third and fourth structures of proteins		
7		Structure, place of action of enzymes, classification and naming of enzymes		
8		Fat-soluble vitamins, water-soluble vitamins		
9		Chemical structure of organic bases, nucleosides, nucleotides, different types of RNA and DNA		
10		Digestion and absorption of carbohydrates and glycolysis		
11		Glycogen metabolism		
12		Cycle crab's		
13		Oxidative phosphorylation		
14		Digestion and absorption of lipids		
15		Biosynthesis of fatty acids		
16		Digestion, absorption and catabolism of proteins		
17		Amino acid metabolism		
18		Nucleic acid metabolism		