نموذج وصف المقرر

Review the performance of the higher education institution ((review of the academic program)
Fundamentals of Biochemistry 1

وصف المقرر

This course description provides a summary of the most important characteristics of the course and the learning outcomes expected of the student to achieve, proving whether he has made the most of the available learning opportunities and must be linked to the program .description

1. Educational Institution	Al-Zahrawi University College - Ministry of Higher Education and Scientific Research
2. University Department / Center	Medical laboratory techniques
3. Course Name / Code	metabolic disorders
4. Programs in which it is included	Bachelor of Bio chemistry
5. Available Forms of Attendance	Daily Attendance in the lab
6. Semester / Year	2024-2025 First Semester
7. Total Number of Study Hours	8 hours per week
8. Date of preparing this description	2024-2025
9. Course Objectives: Provide students with an understanding of the structure and function of a number of the body's main physiological systems and their role in maintaining the body's balance, as well as linking physiological processes to their fundamentals at the cellular level, estimating the normal values of vital activities in relation to different biological conditions, and clarifying the extent of these normal and abnormal values in pathological cases, practically and theoretically.	

10.Learning Outcomes, Teaching and Learning Methods.

1. Grades.

2. Discussion and Dialogue.

3. Tests.

Evaluation:

Grades: Research, Reports, and Tests

A. Knowledge and Understanding

1-1 Functions of the body's organs in a normal state of health.
1- 2 Functions of some body organs in diseased states.
1- 3 The importance of body fluids such as blood and lymph for human life.
1-4 Preparing trained and qualified laboratory personnel to work in medical laboratories

B. Subject-Specific Skills

B-1 Students acquire general knowledge of human organ functions.
B-2 Know how to handle and use laboratory materials and equipment.
B-3 Acquire practical laboratory examination skills.

Teaching and Learning Methods

Through theoretical and practical lectures and visual aids such as the blackboard and smart devices, and practical application of lectures in the laboratory by conducting laboratory examinations.

C. Evaluation Methods

1 - Short daily exams
2 - Termly exams
3 - Preparing reports for each student or each group on academic topics

D. Thinking Skills

D 1. Dialogue Method between Student and Professor.
D 2. Sample Preparation Skill.
D 3. Conducting Discussions and Interpreting Results.
D 4. Enabling the Student to Diagnose Abnormal Cases After Examining Them.

e. General and Transferable Skills

e 1. The student is able to apply the knowledge he has received.

e 2. The student is able to master the skill of the teaching and profession learning.

e 3. The student is able to embody what he has acquired in professional development.

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11. Course Structure

Weeks	Hours	Required Learning Outcomes	Unit Name / Course or Topic	Learning Methods	Evaluation Method
١	٢:٠٠	**knowledge**	Estimation of molarity, molality,osmolarity, osmolalityand Equivalent	**Use of the blackboard and overhead projector**	**Daily Examination and Oral Questions**
٢	٢:٠٠	**knowledge**	Estimation of Na++, K+,P++and Ca	**Use of the blackboard and overhead projector**	**Daily Examination and Oral Questions**
٣	٢:٠٠	**Knowledge**	Estimation of blood gases	**Using the board and drawing blood samples from students**	**Daily Examination and Oral Questions**
٤	٢:٠٠	**knowledge**	**. Estimation of Ze and I**	**Use of the board and overhead projector and practical application**	**Daily Examination and Oral Questions**
٥	٢:٠٠	**knowledge**	**Estimation of urea creatinine, andcreatinine clearance**	**Use of the overhead projector and practical application**	**Daily Examination and Oral Questions**
٦	٢:٠٠	**knowledge**	Estimation of GOT, GPT and ALP	**Use of the board and overhead projector and practical application**	**Daily Examination and Oral Questions**
٧	٢:٠٠	**knowledge**	**Estimation of Bilirubin (direct and indirect)**	**Use of the board and overhead projector and practical application**	**Daily Examination and Oral Questions**
٨	٢:٠٠	**Knowledge**	**Estimation f amylase enzyme**	**Use of the board and overhead projector and practical application**	**Daily Examination and Oral Questions**
٩	٢:٠٠	**Knowledge**	Estimation of triglyceride and cholesterol	**Use of the board and overhead projector and practical application**	**Daily Examination and Oral Questions**

١٠	٢:٠٠	knowledge	Estimation of HDL and LDL and VLDL	Use of the board and overhead projector and practical applicatio n	Daily Examinat ion and Oral Questions
١١	٢:٠٠	knowledge	Estimation of total protein andAlbumin/Glob ulin Ratio	Use of the board and overhead projector and practical applicatio n	Daily Examinat ion and Oral Questions
١٢	٢:٠٠	Knowledge	Estimation of uric acid	Use of the board and overhead projector and practical applicatio n	Daily Examinat ion and Oral Questions
13	٢:٠٠	knowledge	Estimation of Total iron and Iron binding capacity	Use of the board and overhead projector and practical applicatio n	Daily Examinat ion and Oral Questions
14	٢:٠٠	knowledge	Estimation of HbA1c and BMI	Use of the board and overhead projector and practical applicatio n	Daily Examinat ion and Oral Questions
15	٢:٠٠	Knowledge	Estimation of LDH ;CK,cardiac troponin and D-Dimers	Use of the board and overhead projector and practical applicatio n	Daily Examinat ion and Oral Questions

12. Infrastructure	
Required Readings:	**References:** **1- Textbook of biochemistry (Sixth Edition) For Medical Students DM Vasudevan, Sreekumari S and Kannan Vaidyanathan.** 2.Textbook of Medical Biochemistry Eighth Edition 2012. MN Chatterjea Rana Shinde **3- Clinical Biochemistry Lecture Notes.Tenth EditionHoboken, NJ: Wiley, 2018. *Peter Rae. Mike Crane. Rebecca Pattenden***
Special Requirements (Workshops, Journals, Software, Websites):	**Electronic Websites:** The Internet Scientific and Medical Journals
Social Services (Guest Lectures, Professional Training, Field Studies, Others)	**Organizing workshops and courses for graduates: Holding workshops and courses for graduates**

13.	
Prerequisites	**Admission according to the central plan**
Minimum Number of Students	
Maximum Number of Students	**Admission is greater than the capacity plan**

Name of the Instructor:

MSC. Talib Salim Khenyab