

## Course Description Form

1. Course Name:	
Clinical Chemistry Biochemistry	
2. Course Code:	
3. Semester / Year:	
2023/2024	
4. Description Preparation Date:	
5/3/2024	
5. Available Attendance Forms:	
Lecture room,, Practical lab	
6. Number of Credit Hours (Total) / Number of Units (Total)	
90 hours theoretical lectures 60 hours practical lectures	
7. Course administrator's name (mention all, if more than one name)	
Name:	Email:
Lecturer Ihsan Shakir Mahmood	ihsan.mahmood@uobasrah.edu.iq
8. Course Objectives	
<p>The branch seeks to be known and distinguished in the field of of biochemistry and clinical chemistry in Basra in particular and Iraq in general, by explaining and teaching these subjects to students of medical colleges and other supporting colleges, and preparing qualified graduates professionally and academically to carry out advanced laboratory and diagnostic work in health institutions, as well as educational tasks in academic institutions.</p>	
9. Teaching and Learning Strategies	
<b>Strategy</b>	<ol style="list-style-type: none"> <li>1. Theoretical Lectures</li> <li>2. Practical Lessons and clinical cases</li> <li>3. Small Groups teaching</li> <li>4. Online Lectures</li> </ol>
10. Course Structure	

Week	Hours	Required Learning Outcomes	Unit or subject name	Learning method	Evaluation method
14-15	4	Lipid Chemistry	Clinical chemistry	Lectures	Talks\exams
16	2	Nucleic Acid Chemistry	Clinical chemistry	Lectures	Talks\exams
22	2	Cell Membrane	Clinical chemistry	Lectures	Talks\exams
1	6	Introduction and Instruments	Clinical chemistry	Practical\ small group teaching	Talks\exams
2-6	30	Titrations	Clinical chemistry	Practical\ small group teaching	Talks\exams
7-10	24	Color reactions of Carbohydrates	Clinical chemistry	Practical\ small group teaching	Talks\exams
11-14	24	Color reactions of Proteins	Clinical chemistry	Practical\ small group teaching	Talks\exams
15-18	24	Enzymes	Clinical chemistry	Practical\ small group teaching	Talks\exams
18-21	18	Normal urine examination	Clinical chemistry	Practical\ small group teaching	Talks\exams
3-6	4	Carbohydrates metabolism	Biochemistry	Lectures	Talks\exams
11-12	4	Nucleotides metabolism	Biochemistry	Lectures	Talks\exams
25	4	Diagnostic enzymology	Biochemistry	Lectures	Talks\exams
27	4	Cancer chemistry	Biochemistry	Lectures	Talks\exams
1	3	Principle of colorimetry and Standard curve	Biochemistry	Practical\ small group teaching	Talks\exams
2	3	Estimation of Alkaline phosphatase	Biochemistry	Practical\ small group teaching	Talks\exams
3	3	Clinical cases in vitamins	Biochemistry	Practical\ small group teaching	Talks\exams
4	3	Estimation of serum glucose	Biochemistry	Practical\ small group teaching	Talks\exams
5	3	Point of care testing	Biochemistry	Practical\ small group teaching	Talks\exams
6	3	Clinical cases in Diabetes mellitus	Biochemistry	Practical\ small group teaching	Talks\exams
7	3	Clinical cases in lipids	Biochemistry	Practical\ small group teaching	Talks\exams
8	3	Clinical cases in diagnostic enzymology	Biochemistry	Practical\ small group teaching	Talks\exams
9	3	Estimation of serum amylase	Biochemistry	Practical\ small	Talks\exams

				group teaching	
10	3	Estimation of blood urea	Biochemistry	Practical\ small group teaching	Talks\exams
11	3	Clinical cases in nutrition	Biochemistry	Practical\ small group teaching	Talks\exams
12	3	Estimation of serum creatinine	Biochemistry	Practical\ small group teaching	Talks\exams
13	3	Estimation of serum creatinine and creatinine clearance	Biochemistry	Practical\ small group teaching	Talks\exams
14	3	Abnormal constituents of urine	Biochemistry	Practical\ small group teaching	Talks\exams
15	3	Clinical cases in renal diseases	Biochemistry	Practical\ small group teaching	Talks\exams
16-17	6	Clinical cases in hormones	Biochemistry	Practical\ small group teaching	Talks\exams
18	3	Estimation of serum calcium and phosphate	Biochemistry	Practical\ small group teaching	Talks\exams
19	3	Estimation of serum uric acid	Biochemistry	Practical\ small group teaching	Talks\exams
20	3	Plasma proteins	Biochemistry	Practical\ small group teaching	Talks\exams
21	3	Clinical cases in liver diseases	Biochemistry	Practical\ small group teaching	Talks\exams

### 11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports .... etc

### 12. Learning and Teaching Resources

Required textbooks (curricular books, if any)	<b>Chemical bases of life</b> <b>Lippincott's Illustrated Reviews:</b> <b>Biochemistry</b> <b>Harper's physiological Chemistry</b>
Main references (sources)	<b>Chemical bases of life</b> <b>Lippincott's Illustrated Reviews:</b> <b>Biochemistry</b> <b>Harper's physiological Chemistry</b>
Recommended books and references (scientific journals, reports...)	Medical Journals in google scholar. WHO reports. Pub med journals
Electronic References, Websites	Web sites in Biochemistry and Clinical Biochemistry

