



Course Syllabus

1	Course title	Hospital Laboratory Training in Clinical Chemistry & Hormones	
2	Course number	0308481	
3	Credit hours	3 hrs	
	Contact hours (theory, practical)		
4	Prerequisites/corequisites	0308344 + 0308232	
5	Program title	Bachelor of Clinical Laboratory Sciences	
6	Program code	0308	
7	Awarding institution	University of Jordan	
8	School	Science	
9	Department	Clinical Laboratory Sciences	
10	Course level	Fourth Year	
11	Year of study and semester (s)	Second Semester 2023/2024	
12	Other department (s) involved in teaching the course		
13	Main teaching language	English	
14	Delivery method	<input checked="" type="checkbox"/> Face to face learning <input type="checkbox"/> Blended <input type="checkbox"/> Fully online	
15	Online platforms(s)	<input checked="" type="checkbox"/> Moodle <input checked="" type="checkbox"/> Microsoft Teams <input type="checkbox"/> Skype <input type="checkbox"/> Zoom <input type="checkbox"/> Others.....	
16	Issuing/Revision Date	25/2/2024	

17 Course Coordinator:

Name: Abeer AlQatati Office number: 1 st Floor-Biology building Email: a.alqatati@ju.edu.jo	Contact hours: Phone number 0797994080
---	---

18 Other instructors:

Name: Office number: Phone number: Email: Contact hours:
--



19 Course Description:

This course describes the principles of clinical biochemistry in the management of diseases. The scope of this course covers the type of requested diagnostic tests, normal and abnormal carbohydrates, lipids and proteins metabolism. The outcome of abnormal metabolism on the development of diabetes, dyslipidemia, atherosclerosis, obesity, and metabolic disorders. Further knowledge will be obtained on kidney function, liver function, electrolytes and vitamins.



20 Course aims and outcomes:

A- Aims:

This course can provide the student with some basic knowledge on routine biochemical tests and the objectives of their request.

B- Students Learning Outcomes (SLOs):

For purposes of mapping the course SLOs to the MLS program SLOs, upon the successful completion of the program, graduates are expected to be able to:

SLO(1). Understand and apply the theoretical foundations of medical laboratory sciences to accurately calibrate and operate advanced laboratory equipment.

SLO(2). Demonstrate knowledge of safety protocols, Ministry of Health regulations, and environmental preservation practices when handling samples of pathogens and chemical/biological risks.

SLO(3). Acquire in-depth technical knowledge to stay abreast of scientific advancements and actively participate in local and global applied research in the field.

SLO(4). Perform diverse analyses and effectively interpret results for various clinical samples across laboratory disciplines such as hematology, clinical chemistry, microbiology, urine analysis, body fluids, molecular diagnostics, and immunology.

SLO(5). Apply practical training to solve complex problems, troubleshoot issues, and interpret results, ensuring a connection between data and specific medical conditions for precise diagnosis.

SLO(6). Show effective communication skills to convey information accurately and appropriately in a laboratory setting.

SLO(7). Demonstrate a commitment to lifelong learning and innovation by applying modern techniques, critically analyzing information, and contributing to the creation and application of new knowledge in medical laboratory sciences which fulfil the requirements of national and international CBD.

SLO(8). Uphold professional behavior, ensuring the confidentiality of client information, and respecting client privacy throughout all aspects of laboratory work.

SLO(9). Apply managerial skills that align with quality assurance, accreditation, quality improvement, laboratory education, and resource management, showcasing competence in the effective administration of laboratory practices.

Descriptors	ILO/ID	Program SLOs							
		Course SLOs	SLO (1)	SLO (2)	SLO (4)	SLO (5)	SLO (6)	SLO (8)	SLO (9)
Knowledge	A1	Acquiring knowledge about the diagnostic tests commonly used in clinical settings, their methodologies, and interpretation.		X		X			
	A2	Obtaining knowledge of organ functions and their role in maintaining biochemical balance.			X				
Skills	B1	Analyzing and interpreting complex biochemical data to identify patterns and abnormalities.	X		X				
	B2	Applying biochemical knowledge to diagnose and propose treatment plans for patients with metabolic disorders.							
Competence	C1	Applying acquired knowledge and skills to real-world clinical scenarios, demonstrating an ability to make informed decisions in the management of diseases.					X	X	X
	C2	Recognizing the importance of staying updated on advancements in clinical biochemistry and maintaining a commitment to lifelong learning.				X			

21. Topic Outline and Schedule:

Week	Lecture	Topic	Student Learning Outcome	Learning Methods (Face to Face/Blended/ Fully Online)	Platform	Synchronous / Asynchronous Lecturing	Evaluation Methods	Resources
1	1.1	Urine analysis (physical, chemical, microscopic)	A1, B1	Face to Face	Lecture Room	Synchronous	Written Exams, Oral exams, assignments	Clinical chemistry 7th edition by Bishop
2	2.1	Urine analysis (physical, chemical, microscopic)	A1, B1	Face to Face	Lecture Room	Synchronous	Written Exams, Oral exams, assignments	Clinical chemistry 7th edition by Bishop

3	3.1	Urine analysis (physical, chemical, microscopic)	A1, B1	Face to Face	Lecture Room	Synchronous	Written Exams, Oral exams, assignments	Clinical chemistry 7th edition by Bishop
4	4.1	Urine analysis (physical, chemical, microscopic)	A1, B1	Face to Face	Lecture Room	Synchronous	Written Exams, Oral exams, assignments	Clinical chemistry 7th edition by Bishop
5	5.1	Urine analysis (physical, chemical, microscopic)	A1, B1	Face to Face	Lecture Room	Synchronous	Written Exams, Oral exams, assignments	Clinical chemistry 7th edition by Bishop
6	6.1	CSF analysis	A1, B1	Face to Face	Lecture Room	Synchronous	Written Exams, Oral exams, assignments	Clinical chemistry 7th edition by Bishop
7	7.1	CSF analysis	A1, B1	Face to Face	Lecture Room	Synchronous	Written Exams, Oral exams, assignments	Clinical chemistry 7th edition by Bishop
8	8.1	Seminal fluid analysis	A1, B1	Face to Face	Lecture Room	Synchronous	Written Exams, Oral exams, assignments	Clinical chemistry 7th edition by Bishop
9	9.1	Seminal fluid analysis	A1, B1	Face to Face	Lecture Room	Synchronous	Written Exams, Oral exams, assignments	Clinical chemistry 7th edition by Bishop
10	10.1	Synovial fluid analysis	A1, B1	Face to Face	Lecture Room	Synchronous	Written Exams, Oral exams, assignments	Clinical chemistry 7th edition by Bishop
11	11.1	Synovial fluid analysis	A1, B1	Face to Face	Lecture Room	Synchronous	Written Exams, Oral exams, assignments	Clinical chemistry 7th edition by Bishop
12	12.1	Serous fluids	A1, B1	Face to Face	Lecture Room	Synchronous	Written Exams, Oral exams, assignments	Clinical chemistry 7th edition by Bishop
13	13.1	Serous fluids	A1, B1	Face to Face	Lecture Room	Synchronous	Written Exams, Oral exams, assignments	Clinical chemistry 7th edition by Bishop
14	14.1	Discussion of case studies	A1, A2, B1, B2, C1, C2	Face to Face	Lecture Room	Synchronous	Written Exams, Oral exams, assignments	Clinical chemistry 7th edition by Bishop
15	15.1	Discussion of case studies	A1, A2, B1, B2, C1, C2	Face to Face	Lecture Room	Synchronous	Written Exams, Oral exams, assignments	Clinical chemistry 7th edition by Bishop

22 Evaluation Methods:

Opportunities to demonstrate achievement of the SLOs are provided through the following assessment methods and requirements:

Evaluation Activity	Mark	Topic(s)	SLOs	Period (Week)	Platform
Assignments	10	All lab experiments		16	
Quizzes					
Evaluation	10	Hospital evaluation, attendance, participation			
First Exam					
Oral exam	20	Clinical chemistry and endocrinology topics		16	In campus
Final Exam	60	Clinical chemistry and endocrinology topics		16	In campus

23 Course Requirements

The clinical preceptor in each clinical experience will provide feedback about each student to the CLS supervisor at the University. Students will undergo knowledge and performance assessments. Assessment forms will be used to evaluate student performance, knowledge, behavioral and professional skills during the clinical experience. The clinical preceptor may use the assessment forms to provide individual counseling and employment recommendations for the success of the student. Students must successfully complete a final assessment for each clinical rotation to demonstrate competency in that particular MLS discipline. Satisfactory performance for each clinical experience will be indicated by a numerical grade; all students must obtain an 50% or greater in all areas to satisfactorily complete the clinical rotation. A grade below 50% will require remediation or potentially repeating the clinical practicum course/clinical experience. A course syllabus for each clinical rotation will have details about its specific topic area.

24 Course Policies:

A- Attendance policies: 8 hours per day from Sunday to Thursday. Following the rotation schedule assigned by the hospital for trainee.

A weekly meeting at the university for one hour for case study presentations and discussions

B- Absences only permitted after writing a leave of absence request. You need to show evidence of a valid reason (e.g. Medical report)

C- Health and safety procedures: All students should comply with the Hospital health and safety procedures

D- Honesty policy regarding cheating, plagiarism, misbehaviour: All students should comply with the university Honesty policy regarding cheating, plagiarism, misbehavior



E- Grading policy:

Hospital evaluation and attendance	5%
Presentation (case study)	5%
Logbook	10%
Oral Examination	20%
Comprehensive Examination	60%
Fail: 0-49	
Pass : 50-100	

25 References:

A- Required book(s), assigned reading and audio-visuals:

Clinical chemistry 7th edition by Bishop

B- Recommended books, materials, and media:

26 Additional information:

Name of Course Coordinator: **Dr. Abeer Al-Qatati**

Signature: *Abeer Al-Qatati* Date: 2/2024

Head of Curriculum Committee/Department: **Dr. Suzan Matar**

Signature: *Suzan Matar*

Head of Department: **Dr. Ahmed Abu siniyeh**

Signature: *Ahmed Abu siniyeh*

Head of Curriculum Committee/Faculty: **Dr. Mu'ayyad Al Hseinat**

Signature: *Mu'ayyad Al Hseinat*

Dean: **Prof. Mahmoud Jaghoub**

Signature: *Mahmoud Jaghoub*