



Jordan University of Science and Technology
Faculty of Applied Medical Sciences
Allied Medical Sciences Department

LM314 Clinical Biochemistry (2) Practical - JNQF Level: 7

Second Semester 2023-2024

Course Catalog

1 Credit Hours. This course discusses the general fundamentals and principles of clinical bioanalytical chemistry methods. It is a laboratory course covering methods of analysis, practical skills in clinical chemistry laboratories, sources of errors in clinical chemistry tests, and quality control. Topics include enzyme measurements, various organ function tests, lipid profiling, cardiac enzyme profiling, and electrolyte measurements.

Teaching Method: On Campus

Text Book

Title	Clinical Chemistry-Techniques, Principles, and Correlations
Author(s)	Michael L. Bishop, Edward P. Fody, Carleen Van Sclen, James March Mistler, Michelle Moy
Edition	9th Edition
Short Name	Ref #1
Other Information	

Instructor

Name	Mr. Bilal Al-Omari
Office Location	-
Office Hours	
Email	bomari@just.edu.jo

Class Schedule & Room

Section 1:
Lecture Time: Sun : 10:30 - 12:30
Room: LAB 1

Section 2:
Lecture Time: Sun : 14:30 - 16:30
Room: LAB 1

Section 3:
Lecture Time: Wed : 08:30 - 10:30
Room: LAB 1

Section 4:
Lecture Time: Wed : 12:30 - 14:30
Room: LAB 1

Section 5:
Lecture Time: Thu : 10:30 - 12:30
Room: LAB 1

Tentative List of Topics Covered

Weeks	Topic	References
Weeks 1, 2	Phlebotomy	Manual in clinical chemistry & kit sheets From Ref #1
Week 3	Enzyme activity measurement (Amylase)	Manual in clinical chemistry & kit sheets From Ref #1
Week 4	Lipid profile (Total Cholesterol)	Manual in clinical chemistry & kit sheets From Ref #1
Week 5	Lipid profile (Triglyceride)	Manual in clinical chemistry & kit sheets From Ref #1
Week 6	Lipid profile (HDL & LDL)	Manual in clinical chemistry & kit sheets From Ref #1
Week 7	Electrolytes (Phosphorus)	Manual in clinical chemistry & kit sheets From Ref #1
Week 8	LFT (AST&ALT)	Manual in clinical chemistry & kit sheets From Ref #1
Week 9	LFT (Bilirubin total & direct)	Manual in clinical chemistry & kit sheets From Ref #1
Week 10	Trace Elements (Iron & TIBC)	Manual in clinical chemistry & kit sheets From Ref #1
Week 11	Cardiac Profile (Creatinine Kinase)	Manual in clinical chemistry & kit sheets From Ref #1
Week 12	Magnesium	Manual in clinical chemistry & kit sheets From Ref #1
Week 13	Turbidimetry	Manual in clinical chemistry & kit sheets From Ref #1
Week 14	Practical Exam	Manual in clinical chemistry & kit sheets From Ref #1
Week 15	Final Exam	Manual in clinical chemistry & kit sheets From Ref #1

Mapping of Course Outcomes to Program Outcomes and NQF Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Understand the clinical significance of biochemical assays [1SLO1] [1L7K1]	15%	
Ability to interpret the laboratory finding [1SLO3] [1L7S1]	10%	
Applying quality control and quality assurance measures to achieve a precise and accurate diagnosis of diseases with no or minimized errors and false results. [1SLO4] [1L7S3]	15%	
Explain the proper use of laboratory equipment and supplies. [1SLO2] [1L7C4]	25%	
Correlate altered concentrations of biochemical components in body fluids with specific diseases. [1SLO3] [1L7C2]	10%	
Learn the appropriate specimen types, collection techniques, transport protocols, storage conditions, and principles of measurement methods for components in body fluids. [1SLO2] [1L7C4]	25%	

Relationship to Program Student Outcomes (Out of 100%)											
SLO1	SLO2	SLO3	SLO4	SLO5	SLO6	MSLO1	MSLO2	MSLO3	MSLO4	MSLO5	MSLO6
15	50	20	15								

Relationship to NQF Outcomes (Out of 100%)				
L7K1	L7S1	L7S3	L7C2	L7C4
15	10	15	10	50

Policy	
Attendance policy:	? Students are expected to attend more than 80% of lectures. ? All absences will be entered electronically into the University site ? If the absence is more than 20%, the student will be banned from the course after electronic notification from the university through student e-mail.
Expected workload:	Students are expected to take every effort to ensure satisfactory learning of the material given.
Feedback:	Concerns or complaints should be expressed in the first instance to the course instructor. If no resolution is forthcoming, then the issue should be brought to the attention of the department chair and, if still unresolved, to the dean. Questions about the material covered in the lecture, notes on the content of the course, its teaching and assessment methods can be discussed with the course instructor at the designated office hours or by e-mail

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