



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

LM762 Advanced Clinical Chemistry II

First Semester 2025-2026

Course Catalog

3 Credit Hours. This course explores advanced topics in clinical chemistry, focusing on the principles and applications of biochemical testing in complex clinical scenarios. The course delves into specialized subjects such as tumor markers, trace elements, vitamin disorders, inborn errors of metabolism, porphyrins and porphyrias, pregnancy and prenatal testing, geriatric patient care, body fluid analysis, and plasma proteins.

Teaching Method: On Campus

Text Book

Title	Tietz Textbook of Clinical Chemistry and Molecular Diagnostics
Author(s)	Nader Rifai
Edition	7th Edition
Short Name	Tietz Book, Handouts, and Selected Articles
Other Information	7th (2022) or more

Instructor

Name	Dr. REFAT NIMER
Office Location	-
Office Hours	
Email	rmnimer@just.edu.jo

Class Schedule & Room

Section 1:
Lecture Time: Mon : 13:00 - 16:00
Room: U

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	Introduction	From Tietz Book, Handouts, and Selected Articles
Week 1	Inborn Errors of Metabolism-I	From Tietz Book, Handouts, and Selected Articles
Week 2	Inborn Errors of Metabolism-II	From Tietz Book, Handouts, and Selected Articles
Week 3	Porphyryns and Porphyrias	From Tietz Book, Handouts, and Selected Articles
Week 4	Trace Elements	From Tietz Book, Handouts, and Selected Articles
Week 5	Tumor markers	From Tietz Book, Handouts, and Selected Articles
Week 6	Midterm exam	From Tietz Book, Handouts, and Selected Articles
Week 7	Plasma Proteins	From Tietz Book, Handouts, and Selected Articles
Week 8	Vitamins	From Tietz Book, Handouts, and Selected Articles
Week 9	Body Fluid Analysis-I	From Tietz Book, Handouts, and Selected Articles
Week 10	Body Fluid Analysis-II	From Tietz Book, Handouts, and Selected Articles
Week 11	Clinical Toxicology	From Tietz Book, Handouts, and Selected Articles
Week 12	Pregnancy and Prenatal Testing	From Tietz Book, Handouts, and Selected Articles
Week 14	Geriatric (aging) Clinical Chemistry	From Tietz Book, Handouts, and Selected Articles

Policy	
Statement on Professionalism	Students are expected to maintain professional behavior at all times, as it is a minimum requirement for passing this class. Examples of unprofessional behavior include, but are not limited to: missing classes, being late, not paying attention to the speaker, talking to others during lectures, leaving lectures early without prior authorization from the instructor, working on material from other classes during class time, and sleeping during class.
Cheating	University regulations will be applied on cases of cheating and/or Plagiarism.
Cell phone	The use of cellular phones is strictly prohibited in classrooms and during exams. Cellular phones must be switched off during both classroom sessions and exams.
Attendance	Attendance points will not be counted for this class; however, attending lectures will significantly improve your grade. It is crucial for students to attend all classes as they are responsible for the information discussed during lecture sessions.
Absences	University regulations will be strictly enforced. Students are prohibited from exceeding an absence rate of more than 20% of lectures for any reason or excuse. Should a student surpass this limit, they will be ineligible to sit for future course exams. (Please refer to university regulations for further details).
Make-up Exam	Make-up exams are available to students who miss an exam with an accepted legal or medical excuse, provided it is endorsed by the instructor within 24 hours after the scheduled exam. (Please refer to university regulations for further details)

Feedback	Concerns, complaints, questions, and feedback are valued and encouraged as they are essential for the instructor's awareness and improvement. You can reach out to your instructor via email or during office hours.
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Date Printed: 2025-10-04