



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

LM791 Graduation Project
Second Semester 2025-2026

Course Catalog
3 Credit Hours. This course is designed to guide students through the process of developing a complete, well-structured research proposal in a chosen area of medical or biomedical sciences. The course emphasizes independent learning, critical analysis, and application of research methodology, culminating in a final written proposal and oral presentation.
Teaching Method: On Campus

Text Book	
Title	Research Methodology
Author(s)	Ranjit Kumar
Edition	3rd Edition
Short Name	Book
Other Information	

Instructor	
Name	Dr. MARYA OBEIDAT
Office Location	-
Office Hours	Mon : 10:00 - 12:00 Tue : 10:30 - 11:30 Wed : 10:00 - 12:00 Thu : 10:30 - 11:30
Email	mmobeidat82@just.edu.jo

Class Schedule & Room

Section 1:

Lecture Time: Thu : 14:00 - 17:00

Room: LAB

Tentative List of Topics Covered

Weeks	Topic	References
Weeks 1, 2	Scientific Research and Proposal	
Weeks 3, 4	Literature Review and Gap Identification	
Weeks 5, 6	Research Question, Hypothesis, and Aims	
Weeks 7, 8	Research Methodologies	
Weeks 9, 10	Analytical techniques	
Weeks 11, 12	Sample size determination	
Weeks 13, 14	Data-gathering techniques	
Week 15	Proposal Presentation	

Mapping of Course Outcomes to Program Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Develop skills in searching, reading, and synthesizing scientific literature to identify knowledge gaps, justify research questions, and write a coherent background and rationale.	20%	
Develop the ability to identify a relevant research problem, construct a clear, focused, and testable research question, formulate an appropriate hypothesis, and define specific, measurable research aims.	20%	
Critically assess and compare various study designs and methodologies, understanding their suitability, strengths, and limitations for different research contexts	20%	
Learn key analytical and statistical tools to evaluate data and test hypotheses effectively.	10%	
Understand concepts of statistical power, effect size, and significance, and apply them to determine adequate sample sizes in medical studies.	10%	
Learn various methods of data collection (e.g., surveys, laboratory measurements, medical records, interviews), emphasizing accuracy, reproducibility, and ethical considerations.	10%	
Identify and analyze ethical challenges such as informed consent, confidentiality, risk/benefit assessment, and conflicts of interest, following international research ethics standards.	10%	

Evaluation	
Assessment Tool	Weight
Submit a one-page concept sheet including background, question, hypothesis, and aims.	15%
3-4 pages critically reviewing existing studies and identifying a knowledge gap.	20%
2-3 pages detailing study design, data collection, and analysis plan.	30%
Outline ethical considerations, potential challenges, and mitigation strategies.	10%
Complete written research proposal (8-12 pages) following standard format.	15%
10-15 minute PowerPoint presentation + Q&A with panel.	10%

Date Printed: 2026-03-03