



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

LM714 Research Methods And Ethics - JNQF Level: 6

Second Semester 2023-2024

**Course Catalog**

2 Credit Hours. This course will cover the steps of scientific methods and grant proposal writing. This includes formulating a research problem, study designs, data collection, data analysis, data presentation, data interpretations, manuscript writing, and grant proposal writing. In addition, the course covers different aspects of research ethics such as principles of research ethics, protection of research participants, Institutional Review Boards, informed consent, research data management, conflict of interest, authorship, research misconduct, and others

**Teaching Method:** Blended

**Text Book**

<b>Title</b>	Research Methodology and Scientific Writing
<b>Author(s)</b>	George Thomas
<b>Edition</b>	3rd Edition
<b>Short Name</b>	RMSW
<b>Other Information</b>	

**Course References**

Short name	Book name	Author(s)	Edition	Other Information
RE	The Oxford Textbook of Clinical Research Ethics	Emanuel et al.,	1st Edition	

**Instructor**

Name	<b>Prof. Omar Khabour</b>
Office Location	M5 L0 Office 5
Office Hours	Sun : 08:15 - 09:30 Mon : 08:15 - 09:30 Tue : 08:15 - 09:15 Wed : 08:15 - 09:15 Thu : 08:15 - 10:00

Email	khabour@just.edu.jo
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Class Schedule & Room
Section 1: Lecture Time: Thu : 12:30 - 13:30 Room: N4205

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	Introduction	
Week 2	Characteristics and importance of research method	<b>Ch 1 From RMSW</b>
Week 3	Formulation of Research problem	From <b>RMSW</b>
Week 4	Study variables and hypothesis	From <b>RMSW</b>
Week 5	Conceptualizing a research design	From <b>RMSW</b>
Week 6	Constructing an instrument for data collection	From <b>RMSW</b>
Week 7	Selecting a sample	From <b>RMSW</b>
Week 8	Writing a research proposal	From <b>RMSW</b>
Week 9	Manuscript writing	
Week 10	Data management plan	From <b>RMSW</b>
Week 11	Principles of research ethics/protection of research participants	From <b>RE</b>
Week 12	Research Misconduct	From <b>RE</b>
Week 13	Informed consent, conflict of interest, copyright	From <b>RE</b>
Week 14	IRB and Animal Research Ethics Committees	From <b>RE</b>
Week 15	Student presentations	

Mapping of Course Outcomes to Program Outcomes and NQF Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Understand the characteristics and importance of scientific research methods [1MSLO5] [1L6K1, 1L6K2]	10%	Mid-term
Understand steps of scientific research methods [1MSLO5] [1L6K1, 1L6K2]	24%	Mid-term, Final Exam
Understand principles of research ethics [1MSLO4, 1MSLO5] [1L6K1, 1L6K2]	22%	Final Exam
Critically analyze scientific papers [1MSLO6] [1L6S1, 1L6S2]	17%	Mid-term, Final Exam

Design original scientific research, collaborations, teamwork in medical laboratory fields [1MSLO3] [1L6C1, 1L6C2, 1L6C3]	17%	Final Exam
Certified in different aspects of research ethics [1MSLO4] [1L6C1, 1L6C2, 1L6C3]	10%	Assignment - Online modules

Relationship to Program Student Outcomes (Out of 100%)											
SLO1	SLO2	SLO3	SLO4	SLO5	SLO6	MSLO1	MSLO2	MSLO3	MSLO4	MSLO5	MSLO6
								17	21	45	17

Relationship to NQF Outcomes (Out of 100%)						
L6K1	L6K2	L6S1	L6S2	L6C1	L6C2	L6C3
28	28	8.5	8.5	9	9	9

Evaluation	
Assessment Tool	Weight
Mid-term	40%
Assignment -Online modules	10%
Final Exam	50%

Policy	
Attendance	JUST policy requires faculty to assign a grade of ZERO if a student misses 20% of the classes. If you miss class, it is your responsibility to find out about any announcements or assignments you may have missed.
Integrity	Plagiarism and any other form of academic misconduct will not be tolerated and will lead to expulsion from the course
Assignment	- Completion of 5 online ethics training modules that are available at open.just.edu.jo. Each training module will be given 2 grades (total 10 grades). - Writing and presenting grant proposal (10 grades)

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