



**Jordan University of Science and Technology**  
**Faculty of Computer & Information Technology**  
**Computer Science Department**

CS789 Seminar In Advanced Computer Science

Second Semester 2023-2024

**Course Catalog**

1 Credit Hours. By studying this course, students will be taught how to write a proposal, find related material (in the library, on the web, etc), present their work in front of an audience, defend their work, know the art of writing scientific papers, etc.

**Teaching Method:** On Campus

**Text Book**

<b>Title</b>	Experimentation in Software Engineering
<b>Author(s)</b>	Claes Wohlin, Per Runeson, Martin Host, Magnus C. Ohlsson, Bjorn Regnell, Anders Wesslen
<b>Edition</b>	1st Edition
<b>Short Name</b>	Ref #1
<b>Other Information</b>	

**Course References**

Short name	Book name	Author(s)	Edition	Other Information
Ref #2	Research Methodology : Methods And Techniques	Kothari, C. R.	2nd Edition	
Ref #3	The Craft of Research	Wayne C. Booth, Gregory G. Colomb, Joseph M. Williams	3rd Edition	

**Class Schedule & Room**

Section 1:  
 Lecture Time: Sun : 11:00 - 12:00  
 Room: LAB

Tentative List of Topics Covered		
Weeks	Topic	References
Week 1	How to find and read related materials	
Week 2	How to present and conference presentations	
Week 3	Research ethics	
Week 4	Introduction to research methods	
Week 5	Defining the research problem	
Week 6	Writing research proposals	
Week 7	Systematic literature reviews	
Week 8	Case studies	
Week 9	Sampling design	
Week 10	Methods of data collection	
Week 11	Data analysis and interpretation	
Week 12	Report writing and dissemination	
Week 13	Research critique and research review	
Week 14	Review	

Mapping of Course Outcomes to Program Outcomes	Course Outcome Weight (Out of 100%)	Assessment method
Describing ethical issues related to research, in addition to describing the legal and ethical implications of data. [1SO4]	20%	
Assessing research articles and writing a research critique. [1SO1]	20%	
Describing research methods and possible processes in conducting research, including finding related materials, writing research proposals, sampling design, methods of data collection, data analysis and interpretation, and report writing and dissemination. [1SO1]	40%	
Analyzing, interpreting, and presenting selected topics in front of an audience. [1SO3]	20%	

Relationship to Program Student Outcomes (Out of 100%)					
SO1	SO2	SO3	SO4	SO5	SO6
60		20	20		

Evaluation	
Assessment Tool	Weight
Presentation	20%

assignments	40%
final_work(presentation and assignment)	40%

<b>Policy</b>	
Attendance	Attendance is very important for the course. In accordance with university policy, students missing more than 20% of total classes are subject to dismissal. Penalties may be assessed without regard to the student's performance. Attendance will be recorded at the beginning or end of each class.

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