The University of Jordan
School of Engineering

Department	Course Name	Course Number	Semester
Mechanical Engineering	Research Methodology	0904709	

2005 Course Catalog Description

In this course, the student learns how to conduct a scientific research, starting from developing he research idea up to writing and presenting a technical report. The course starts by attending a number of lectures given by faculty and invited speakers where models of researches and case studies in advanced fields of mechanical engineering are presented. Meanwhile, students undertake limited researches of their own under the supervision of faculty staff members to learn how to define the problem; how to make literature review, searching through various resources such as the Engineering Index and Internet. Methods of Solution: Analytical, Numerical and Experimental methods. Report writing: Introduction; Analysis; Description of the experiment; Experimental procedure; Results; Discussion Conclusions; Recommendations; References; Abstract. At least one report/ paper will be prepared and presented by the student in front of colleagues and staff.

Instructors

Name	E-mail	Sec	Office Hours		Lecture Time	

Text Books

	Text book 1	Text book 2
Title		
Author(s)		
Publisher, Year, Edition		

References

Books	
Journals	
Internet links	

Prerequisites

Prerequisites by topic	
Prerequisites by course	
Co-requisites by course	
Prerequisite for	

Topics Covered

Week	Topics	Chapter in Text	Sections

Course Outcomes

1.
2.
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Evaluation

Assessment Tools	Expected Due Date	Weight
Assignments & Participation		30%
Mid-Term Exam (Proposal)		30%
Final Exam (Final Report)		40%

Contribution of Course to Meet the Professional Components

The student is expected to gain the following skills during this course:

- Understand the steps involved in conducting research in the different fields of Mechanical Engineering
- Select a research problem
- Prepare a thorough literature review
- Develop a research proposal
- Do the intended research (data collection, analysis, comparisons, …)
- Prepare a research report
- Present and defend the research work.

Relationship to Mechanical Engineering Program Objectives (MEPOs)

MEPO1	MEPO2	MEPO3	MEPO4

Updated by ABET Committee, 2024