

The University of Jordan
School of Engineering
Department of Mechatronics Engineering
2 Semester 2017/2018



Course:	Introduction to Engineering 0908200 (2 Credit hours– Compulsory Course)
Instructor:	Dr. Musa Al-Yaman Office: Mechatronics Engineering Department, Telephone: 5355000 ext 23032 Email: m.alyaman@ju.edu.jo
Course Website:	http://eacademic.ju.edu.jo/m.alyaman/Material/Forms/AllItems.aspx
Catalog Data:	An introduction to the study and practice of engineering. Topic include: History of engineering, major engineering disciplines, engineering design and problem solving, ethics and teamwork, communication skills, computer tools, profile of the engineering profession.
Prerequisites by Course:	None
Prerequisites By Topic:	None
Textbook:	Engineering Your Future: A Brief Introduction to Engineering 3rd Ed. By W. Oakes, L. Leone and C. Gunn, (2008) Great Lakes Press.
References:	<ul style="list-style-type: none">• <i>Engineering Fundamentals: An Introduction to Engineering. 4th ed. By S. Moaveni, (2011). Cengage Learning</i>• <i>Exploring Engineering: An Introduction to Engineering and Design. 2nd ed by P. Kosky, R. Balmer, W. Keat and G. Wise. (2010).. Elsevier Inc</i>
Schedule & Duration:	16 Weeks, 32 lectures (50 minutes each) plus exams.
Minimum Student Material:	Text book, class handouts, and an access to Personal Computer with office software
Instructional Methods	<ol style="list-style-type: none">1. Lecture/Problem solving sessions.2. Case studies using Microsoft office.3. short pop-up Quizzes
Minimum College Facilities:	Classroom with whiteboard and projection display facilities, library, and computational facilities.
Course Objectives:	<ol style="list-style-type: none">1. Recognize the role of engineering design and engineering analysis in economy and society.2. Appreciate the importance of multidisciplinary teamwork in engineering practice.3. Understand the ethical and social responsibility of engineers.4. Recognize the importance of written and oral communication in the engineering profession.
Contribution to Professional Component	The course motivates the student to acquire the knowledge, skills and attitudes necessary to succeed in an engineering profession, and helps building teamwork, communication skills and ethical responsibility.

Course Learning Outcomes and Relation to ABET Student Outcomes:

Upon successful completion of this course, a student should:

1. Recognize the role of engineering design and engineering analysis in economy and society
2. Appreciate the importance of multidisciplinary teamwork in engineering practice.
3. Understand the ethical and social responsibility of engineers.
4. Recognize the importance of written and oral communication in the engineering profession
Recognize the need to engage in life-long learning
5. Know how to use Microsoft Word and Microsoft Project software
6. An ability to identify and solve engineering problems

Course Topics:

	Chapter(s) in Text	Hrs
The History of Engineering	Chapter 1	2
Engineering Majors	Chapter 2	4
Profile of the Engineering Profession	Chapter 4	4
Succeeding in the Study of Engineering	Chapter 5	4
Problem Solving	Chapter 6	4
Computer Tools for Engineers	Chapter 7	2
Teamwork Skills	Chapter 8	4
Engineering Design	Chapter 9	2
Communication Skills	Chapter 10	2
Ethical Responsibility	Chapter 11	2

Ground Rules: □ Attendance:

Students are expected to attend EVERY CLASS SESSION and they are responsible for all material, announcements, schedule changes, etc., discussed in class. The university policy regarding the attendance will be strictly adhered to.

• Make up Examinations

There will be no makeup exams for any exam that will be taken during the course.

Exceptions to this rule is restricted only to the following cases:-

1. Death of only first order relatives (father, mother, sister, or brother).
2. Hospital entry (in-patient) during the time of the examination.

Any other cases will be given the zero mark in the corresponding exam.

• Special Notes

1. Seating plan will be as given in the attendance sheet.
2. Students creativity is welcomed and will receive additional marks

Assessments: Exams, Quizzes, Projects, and Assignments.

Grading policy:

Project	15 %
Quizzes	10 %
Midterm Exam	25%
<u>Final Exam</u>	<u>50 %</u>

Total 100%

Last Updated: October. 2017