KOMAR UNIVERSITY OF SCIENCE AND TECHNOLOGY
(KUST)

INTRODUCTION TO ENGINEERING COURSE SYLLABUS			
Course Title	**Introduction to Engineering**		
Course Code	**ENG 1200**	**No. of Credits**	**2**
Department	**All departments**	**College**	**Engineering**
Pre-requisites Course Code	**English level 4 and Talent Science**	**Co-requisites Course Code**	
Course Coordinator(s)	**Twana A. Tahir**		
Email	**twana.abdulrazaq@komar.edu.iq**	**IP No.**	
Other Course Teacher(s)/Tutor(s)	**Non**		
Learning Hours	**Section One:** Sunday (8:00-9:50AM)- Room (105)		
Contact Hours	**Tuesday: 14:00-16:00, 3rd floor.**		
Course Type	**College Requirement**		
Offer in Academic Year	**Spring 2016**		

COURSE DESCRIPTION

The purpose of the course is to allow you to get a glimpse of engineering from the beginning of the student's study at KUST and to become broadly educated across engineering disciplines. The course introduces basic topics such as problem-solving, simple design exercises, team work and prepares students for more advance courses in engineering and specialty. In addition the course give a chance to students to learn more about their selected disciplines via wring a study paper and participating in field trips.

COURSE LEARNING OUTCOMES

After participating in the course, students would be able to:

1. Knowledge of Engineering disciplines:

- Define basic terminologies in engineering and chosen disciplines (d).

2. Knowledge of Engineering responsibility:

- Recognize the social and legal responsibilities of Engineering professional (f).

3. Understand Engineering problems and how to communicate graphically.

- State the solution for engineering problems (e)
- Learn to communicate effectively (g), and

4. Application of the concept of engineering design to design simple project.

- Design simple project (b).

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GUIDELINES ON GRADING POLICY

Points	*Percentage Scores*	*Grade*
A *A-*	*95–100* *90-94*	*4.0* *3.7*
B+ *B* *B-*	*87–89* *83-86* *80-82*	*3.3* *3.0* *2.7*
C+ *C* *C-*	*75–79* *70-74* *65-69*	*2.3* *2.0* *1.7*
D+ *D* *D-*	*60–64* *55-59* *50-54*	*1.3* *1.0* *0.7*
F	*0–49*	*0*
I	*Incomplete Course Work*	
W	*Official Withdrawal*	

COURSE TEACHING AND LEARNING ACTIVITIES

Course Teaching and Learning Activities: (short description)

1. Interactive class discussion
2. Presentations
3. Lectures
4. Project work
5. In class brainstorming sessions
6. Discipline guest speaker

COURSE ASSESSMENT Tools

Assessment Method	Assessment Weight	Learning outcomes (CLOs)	Weight
Quizzes (2)	5%	Knowledge of Engineering disciplines	5%
Discipline Study Paper Presentation	10%	Understand Engineering problems and how to communicate graphically	30%
Field Trip Report (500 words)	10%		
Test (1 hr)	15%	Knowledge of Engineering disciplines	35%
Midterm Exam (1 hr)	20%		
Case Study Report (500 words)	10%	Understand Engineering problems	10%
Final Exam (1.5 hrs)	30%	CLO 1-2 and 3	10%,5% and 5%
Total	**100%**		
Extra: Design project	**Extra 5%**	Application of the concept of engineering design	5%

Case Study Report: Identify real local engineering problems and try to suggest solutions for it.

Grading: Passing Grade: 65%

ESSENTIAL READINGS: (Journals, textbooks, website addresses etc.)

Textbooks:

Name of the Textbook: **Foundations of Engineering**, 2nd Edition
Authors: Mark Holtzapple and W. Reece
Publisher: McGraw Hill, USA
ISBN:0-07-248082-3
Year: 2003

References:

1. Engineering Fundamental and Problem Solving
Authors: Arvid R. Eide, Ronald D. Jenison, Lane H. Mashaw
Larry L. Northup
Edition 4th, Publisher \ McGraw-Hill
ISBN 0-07-243027-3

2. Introduction to Engineering \ Author: Paul Wright
Edition 3ed, Publisher \ Wiley
ISBN 0-471-05920

3. Introduction to Engineering
Authors:
W. Lionel Craver
Darrell C. Schroder
Anthony J. Tarquin
ISBN 0-19-510725-x

COURSE POLICY *(including plagiarism, academic honesty, attendance etc)*

Students registered for any course are expected to attend all lectures and must attend all laboratories, examinations, quizzes and practical exercises, subject to penalties specified by the instructor for that course. Students who miss class must obtain permission from the course instructor to make up missed work. This permission must be requested at the earliest possible opportunity and before the absence, if possible. The student must arrange with the instructor to ***make up*** the missed work. The makeup must be completed within two weeks after the absence. In the case of missed final examinations, the policy on incomplete (I) applies. For more information visit this link: http://sar.komar.edu.iq/CurrentStudents.html.

GUIDELINES FOR SUCCESS

1. Work both independently and in groups of your peers, who can help you understand the course material**.**
2. Attend every lecture, discussion, and lab.
3. Make every effort to interact with your class partner(s).
4. Try to stay active throughout the class period.
5. Don't hesitate to ask questions in class.
6. Put your fair share of efforts in preparing the term projects and the term paper.
7. Be cooperative at all times.
8. Spend at least 2-3 hours each day for studying and doing homework.

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Course Schedule

Week	Due Date	Chapter/ Section	Assessment Tools	CLOs
1	**February 28, 2016**	**Chapter One:** 1. The Engineer 1.1-1.3, 1.5, 1.8		1
2	**March 6, 2016**	**Chapter One:** 1.10-1.12		1
3	**March 13, 2016**	**Chapter Two:** 2. Engineering Ethics 2.1-2.7 Work on Example 2.6 (Page 43) Case Study 2.6, page 50	**Quiz -1- Chapter ONE**	2
	March 20-26, 2016	**Nawroz Holiday**		
4	**March 27, 2016**	**Chapter Three:** 3. Problem Solving 3.1-3.2. 3.3	**Choosing a topic (Case Study report) for 10% on Local Engineering problem with solution.**	3
5	**April 3, 2016**	**Test -1-**	**Test 1 (15%, Chapters 1-3)**	2
6	**April 10, 2016**	**Chapter Five:** 5. Introduction to Design 5.1-5.2		4
7	**April 17, 2016**	**Chapter Six:** 6. Engineering Communication 6.1-6.2	**Quiz-2- Chapter FIVE**	3
	April 22-28, 2016	**Midterm Exam**	**Test 2 (20%, Chapters 1-6)**	1
8	**May 1, 2016**	Engineering Discipline	**Submitting Case study report (10%)**	1
9	**May 8, 2016**	**Design project**	**Presenting the projects (Extra 5%)**	4
10	**May 15, 2016**	Discipline Study Paper	**Presentation (10%)**	3
11	**May 22, 2016**	Discipline Guest Speaker • What is the disciple? • How is it practiced in Kurdistan • Why a student should choose the discipline • What are the practice skills to become a successful engineer		1
12	**May 29, 2016**	Discipline Guest Speaker		1

13	June 5, 2016	Field Trip	Conducting Field Trip related to the disciplines	3
14	June 12, 2016	Field Trip Report	**Submitting report with brief discussion about it (10%)**	3
15	June 19, 2016	Review week		
16	June 24-30, 2016	**Final Exam**	**30% (20% General topics and 10% discipline)**	1,2 and 3