

**DEPARTMENT OF INDUSTRIAL ENGINEERING
COURSE SYLLABUS**

<i>COURSE TITLE</i>	<i>ENGLISH CODE/NO</i>	<i>ARABIC CODE/N O.</i>	<i>CREDITS</i>			
			<i>Th.</i>	<i>Pr.</i>	<i>Tr.</i>	<i>Total</i>
Coop Work Program	IE 400	ھ ص ٤٠٠	-	16	1000	8
<i>Pre-requisites:</i>	IE 422, IE 432					
<i>Course Role in Curriculum</i>	<i>Required or Elective:</i>		Required Core Course			
<i>Catalogue Description:</i> Undertaking practical training for 26 weeks under supervision of an academic advisor and a company supervisor in a company performing industrial engineering activities. Submitting, as per schedule, three coop progress reports. Submitting a coop final report containing matters as specified in the cooperative education program document. Multimedia presentation of achieved work.						

Textbooks:

Maynard's Industrial Engineering Handbook
Kjell Zandin (Author), Harold Maynard
ISBN-10: 0070411026 | ISBN-13: 978-0070411029

Supplemental Materials:

Course Learning Outcomes:

By the completion of the course the student should be able to:

1. Exposing the student to the real life experience to familiarize the student with the work environment and giving the students a chance to develop the required employability skills.
2. Identify potential customers, their needs, and their operational constraints – (c).
3. Strengthening the student's understanding of the theoretical background in his field of study by Integrating previous knowledge from mathematics, basic sciences, engineering fundamentals and discipline related courses - (a).
4. Collect and review related data such as technical information, regulations, standards, and operational experiences from credible literature resources - (e, i, j).
5. Plan an effective project work plan, using standard project planning techniques, to ensure project completion as per constraints - (c).
6. Demonstrating the ability to deal with the society outside the university and prove to be a life long learner.
7. Demonstrate ability to achieve project objectives while acting as an effective member of a multidisciplinary team - (c, d).
8. Communicate project details and express thoughts clearly and concisely, both orally and

in writing, using necessary supporting material, to achieve desired understanding and impact - (g, k).
 9. Introducing the employers to the qualifications of the future human resources and to give the employer an opportunity to evaluate the students' performance.

<u>Topics to be Covered:</u>	<u>Duration in Weeks</u>

Student Outcomes addressed by the course: (Put a √ sign)

(a) an ability to apply knowledge of mathematics, science, and engineering	√
(b) an ability to design and conduct experiments, as well as to analyze and interpret data	
(c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability	√
(d) an ability to function on multidisciplinary teams	√
(e) an ability to identify, formulate, and solve engineering problems	√
(f) an understanding of professional and ethical responsibility	√
(g) an ability to communicate effectively	√
(h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context	
(i) a recognition of the need for, and an ability to engage in life-long learning	√
(j) a knowledge of contemporary issues	√
(k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.	√

Key Student Outcomes assessed in the course: (d) (e) (f) and (g)

Instructor or course coordinator: Dr. Waqar Ahmad
Last updated: February 2015