

**DEPARTMENT OF AERONAUTICAL ENGINEERING  
COURSE SYLLABUS**

<i>COURSE TITLE</i>	<i>ENGLISH CODE/NO</i>	<i>ARABIC CODE/NO.</i>	<i>CREDITS</i>			
			<i>Th.</i>	<i>Pr.</i>	<i>Tr.</i>	<i>Total</i>
<b>Summer Training</b>	<b>IE 390</b>	٥٣٩٠	-	4	400	2
<i>Pre-requisites:</i>	COMPLETION OF 115 CH					
<i>Course Role in Curriculum</i>	<i>Required or Elective:</i>		Required Core Course			
	<i>A pre-requisite for:</i>					
<i>Catalogue Description:</i> 10 weeks of supervised hands-on work experience at a recognized firm in a capacity which ensures that the student applies his engineering knowledge and acquires professional experience in his field of study at KAU. The student is required to communicate, clearly and concisely, training details and gained experience both orally and in writing. The student is evaluated based on his abilities to perform professionally, demonstrate technical competence, work efficiently, and to remain business focused, quality oriented, and committed to personal professional development.						

**Textbooks:**

None

**Supplemental Materials:**

**Course Learning Outcomes:**

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

1. Formulate an objective or mission statement that identify the real problem and describe the expected outcomes of the training activity.
2. Break-down a work environment into its units and work functions, and describe how these units are assembled into a whole entity.
3. Describe a professional organizational structure, its size and how it is related to its main products and to market issues.
4. Exhibit integrity, punctuality, and ethical behavior in engineering practice and relationships.
5. Demonstrate enthusiasm and business focusing.
6. Establish successful relationships with team members, advisors, and clients to understand their needs and to achieve or exceed agreed-upon quality standards.
7. Maintain focus to complete important tasks on time and with high quality, amidst multiple demands
8. Relate practical work to previous knowledge from basic sciences, engineering fundamentals, and discipline related courses.
9. Collect and review related data such as technical information, regulations, standards, and operational experiences from credible literature resources
10. Utilize prior knowledge, independent research, published information, and original ideas in addressing problems and generating solutions
11. Monitor achievement, identify causes of problems, and revise processes to enhance satisfaction
12. Communicate, clearly and concisely, training details and gained experience, both orally and

in writing, using necessary supporting material, to achieve desired understanding and impact.

**Topics to be Covered:**

**Duration  
in Weeks**

- |    |   |   |
|----|---|---|
| 1. | Acquainting the trainee by the company, its work environment, organizational structure, products, costumers, engineering units, quality system, and safety standards and procedures.  | 2 |
| 2. | Familiarizing the trainee of one production or design unit with deep understanding of the work environment, regulations, standards, etc...  | 1 |
| 3. | Allocating the trainee to a project team and allowing him to study and collect necessary data about the project using internal and external data sources.   | 1 |
| 4. | Working as a team member to execute assigned tasks with the following objectives:<br>a. Apply engineering practices related to his specialization.<br>b. Enhance team work skills.<br>c. Relate practical work to his engineering knowledge.<br>d. Use modern engineering tools such as equipment and computer software.<br>e. Use project management techniques.<br>f. Complete assigned tasks on time with high quality.<br>g. Develop personal communication skills. | 6 |

**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:** (f) and (g)

***Instructor or course coordinator:*** Prof. Ali Al-Bahi

***Last updated:*** February 2015