DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING
COURSE SYLLABUS

EE 390: Summer Training

COURSE TITLE	*CODE & NUMBER*	*SUBJECT AREA*	*Contact Hours*			*Credit Units*
			Th.	*Pr.*	*Tr.*	
Summer Training	**EE 390**	Engineering	**-**	**-**	**400**	**2**
Pre-requisites:	Department Approval					
Course Role in Curriculum	Required Course (Regular Option)					

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

Key Student Outcomes addressed by the course: (Put a tic mark ✓**)**

(1) An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics	
(2) An ability to apply the engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors	
(3) An ability to communicate effectively with a range of audiences	✓
(4) An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts	✓
(5) An ability to function effectively on a team whose members together provide leadership, creates a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives	✓
(6) An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.	
(7) An ability to acquire and apply new knowledge as needed, using appropriate learning strategies	✓

Instructor or course coordinator: Dr. Abdullah Balamesh

Last updated: Spring 2020