Eastern Mediterranean University
Faculty of Engineering, Department of Electrical and Electronic Engineering
BMED403 – Summer Training
Web: lms.emu.edu.tr

COURSE DESCRIPTION

Year and Semester : 3/4, Summer
Credit Hour : 0
Pre-requisite(s) : Departmental Consent
Academic Term : Summer

Course Description, Rationale and Goals

Catalog Description:
In accordance with rules and regulations set by the Electrical and Electronic Engineering Department, in partial fulfillment of graduation requirements, each student is required to complete 40 working days of training during the summer vacations or at the end of fall semester. Training should take place in an organization which focuses on Biomedical Engineering operations such as businesses or health institutions where biomedical devices are manufactured, sold, used and after-sales support is provided, pharmaceutical industries and medical research centers. A formal report and evaluation by the work supervisor is required.

Prerequisite:
Junior standing, BMED327 (Biomedical Instrumentation I), BMED328 (Biomedical Instrumentation II) and/or consent of department.

Instructors:
Members of the Summer Training Committee.

Lab Assistant(s): No lab.

Textbook(s): No textbook.

Rationale and goals:
Summer training provides an excellent platform for students to gain practical experience. This practice goes beyond textbooks and lectures and enhances their learning skills. Students can gain valuable insights about the industry and understand the most up to date biomedical engineering technology during their training. Besides that, students may receive job offers from the summer training organizations after graduation.

Course Requirements, Grading / Policy:
Each student is required to complete 40 days of summer training in a company that satisfies the requirements in the course description. During the training the student should make sure that the work supervisor fills out the logbook daily and conducts a formal and confidential evaluation of the student at the end of the training. The logbook which contains the daily account of the work done by the student and the work supervisor's evaluation must be stamped by the company seal and it should be put in a sealed envelope to be returned to the department.
In addition to the properly filled logbook the student is required to write a formal report documenting the training in the workplace. The following semester the student registers to the BMED403 course and prior to the beginning of the final exams, he/she submits the logbook and the report to his/her evaluator.

Course Learning Outcomes
The course has been designed to contribute to the following student outcomes:

(a) An ability to learn how to use the techniques, skills, and modern engineering tools necessary for engineering practice.
(b) An ability to identify and learn the stages of Biomedical Engineering operations such as electronic circuit, biomedical equipment and system i) design, ii) construction, iii) installation, iv) production, v) production planning, vi) maintenance and/or vii) quality control.
(c) An ability to document, report and present biomedical engineering operations in a formal report.

(d) An ability to work in a team.
(e) An ability to communicate effectively with a range of audiences

Student Outcomes

(2) an ability to apply 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, create 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.

Contribution of Course Learning Outcomes to Student Outcomes

	Student Outcome:						
Course Learning Outcome	**1**	**2**	**3**	**4**	**5**	**6**	**7**
1) An ability to learn how to use the techniques, skills, and modern engineering tools necessary for engineering practice.						•	•
2) An ability to identify and learn the stages of electrical or electronics engineering operations such as electrical and/or electronic circuit, equipment and system i) design, ii) construction, iii) installation, iv) production, v) production planning, vi) maintenance and/or vii) quality control.		•	•	•	•	•	•
3) An ability to document, report and present electrical and electronic engineering operations in a formal report.			•	•	•		
4) An ability to work in a team.			•	•	•		
Prepared by: Hasan Amca	Date Prepared: 21.4.2021						