

- 1. Course number and name**
COE 491 – Design Project II
- 2. Credits and contact hours**
2 credit hours, 6 contact hours
- 3. Instructor's or course coordinator's name**
Dr. Raafat Aburukba
- 4. Textbook, title, author, and year**
None

Other supplemental materials

Online resources found on: <http://ilearn.aus.edu>

- 5. Specific course information**
 - a. Brief description of content of the course (catalog description)**
Continues the work of COE 490.
 - b. Prerequisites or co-requisites**
Prerequisite: COE 490 (Design Project I)
 - c. Indicate whether a required, elective, or selected elective course in the program**
Required
- 6. Specific goals for the course**
 - a. Specific outcomes of instruction**

This course requires the student to demonstrate the following:

 1. Use current techniques, devices, materials, and tools to plan, design and implement a process, a component, or a computer system based on the proposed solution to meet a given set of requirements
 2. Test and validate the design
 3. Work effectively as member of a team
 4. Communicate effectively through an oral presentation and a written report
 5. Demonstrate awareness of contemporary issues
 6. Relate the global, economic and societal context of the approved project.

b. Explicitly indicate which of the student outcomes listed in Criterion 3 or any other outcomes are addressed by the course

This course contributes in a significant way to the accomplishment of the following program outcomes:

Program outcome	Emphasis in this course
(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.	●

Emphasis: ● High; ◐ Medium; ○ Low; Blank – Nothing Specific Expected

7. Brief list of topics to be covered

None