

1. Course number and name
CMP 491 – Project in Computer Science 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 CMP 490.

b. Prerequisites or co-requisites

Prerequisite: CMP 490 (Project in Computer Science 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 computing and mathematics appropriate to the discipline	●
(b) an ability to analyze a problem, and identify and define the computing requirements appropriate to its solution	●
(c) an ability to design, implement, and evaluate a computer-based system, process, component or program to meet desired needs	●
(d) an ability to function effectively on teams to accomplish a common goal	●
(e) an understanding of professional, ethical, legal, security and social issues and responsibilities	○
(f) an ability to communicate effectively with a range of audiences	●
(g) an ability to analyze the local and global impact of computing on individuals, organizations, and society	○
(h) recognition of the need for and an ability to engage in continuing professional development	●
(i) an ability to use current techniques, skills, and tools necessary for computing practice	●
(j) an ability to apply mathematical foundations, algorithmic principles, and computer science theory in the modeling and design of computer-based systems in a way that demonstrates comprehension of the tradeoffs involved in design choices	●
(k) an ability to apply design and development principles in the construction of software systems of varying complexity	●

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

7. Brief list of topics to be covered

None