#### American University of Sharjah | College of Engineering

#### 1. Course Number and Course Title:

CMP 491 – Project in Computer Science II

#### 2. Credit Hours:

0-6-2

### 3. Prerequisites and/or Co-Requisites:

Prerequisites: CMP490 Project in Computer Science I.

# 4. Name and Contact Information of Instructor:

Dr. Hicham H. Hallal

# 5. Course Description:

Continues the work of CMP 490.

### 6. Textbook and other supplemental materials:

Textbook: None.

Supplemental materials:

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

### 7. Course Learning Outcomes:

Upon completion of the course, students will be able to:

- 1. Use current methodologies and tools to conceive, plan, design and test a computer system, component or process based on a given set of requirements.
- 2. Find relevant information about a topic of interest from a wide range of sources.
- 3. Consider different alternatives in design, compare the alternatives, and select the optimum one.
- 4. Develop a project proposal outlining the study plan, methodology, time schedule and project resources.
- 5. Work effectively as a member of a team.
- 6. Understand the local and global impact of computing
- 7. Write and present technical content effectively.

### 8. Teaching and Learning Methodologies:

Methods include lectures, quizzes, class discussions and a project report.

#### 9. Course Topics and Schedule:

Students are supposed to continue the work started in CMP 490 to implement a prototype of the proposed system. Weekly meetings are scheduled with the assigned advisors to discuss progress in the project work and satisfaction of the requirements. Project work includes the following main items:

- 1. Enhancement of the problem statement, literature review, and requirements of the proposed system based on recommendations and comments received in CMP 490.
- 2. Detailed system architecture and design of the system
- 3. Implementation of the prototype.

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- 4. Verification and Validation of the implemented prototype.
- 5. Analysis of the social/global impact of the implemented prototype.

Monitoring of the progress will be measured based on submitted reports documenting of the above tasks.

Students will be required to attend at least two lectures/seminars by industry leaders in order to be able to appreciate contemporary issues and how computer engineering is involved in them. Quizzes will be administered on the examined topics.