American University of Sharjah | College of Engineering

1. Course Number and Course Title:

CMP 490 – Project in Computer Science I

2. Credit Hours:

0 - 3 - 1

3. Prerequisites and/or Co-Requisites:

<u>Prerequisite:</u> CMP 235 (Ethics for computing and Information Technology) or PHI 206 (Ethics and Information Technology) and ENG 207 (Professional Communication for Engineers)

Prerequisite/Concurrent: COE 420 (Software Engineering)

4. Name and Contact Information of Instructor:

Dr. Hicham H. Hallal

5. Course Description:

Includes faculty supervised projects on special topics of current interest. Requires both oral and written presentations on the topics.

6. Textbook and other supplemental materials:

Textbook: None.

Supplemental materials:

• Templates for report, slides for presentations, etc.

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 proposal.

9. Course Topics and Schedule:

Topic	Weeks
Team building, team conflicts (O5)	1
Finding Project Ideas and formulating the problem statement (O2)	1

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Formal proposal content and "giving presentations" (O4)	1
Project management: The lifecycle (O4)	1
How to use library resources effectively to conduct a literature review (O2)	1
Introduction to Engineering Ethics, Technology and Society (O6)	1
Design methodologies: Functional/Non-Functional Requirements, Diagrams,	
Alternatives (O1, O3)	2
Introduction to Engineering Standards (O6)	1
Project Documentation and Presentation (O7)	1