

**1. Course Number and Course Title:**

CMP 490 – Project in Computer Science I

**2. Credits Hours:**

0 – 3 – 1

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

CMP 235 Ethics for Computing and IT,  
ENG 207 English for Engineering, and  
Senior Standing

Pre-req/co-req: COE 420 Software Engineering

**4. Name and Contact Information of Instructor:**

Dr. Imran Zualkernan

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Phone: (06)515-2953

Office Hours: as posted on *iLearn* or by appointment

**5. Course Description (Catalog Description):**

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

**6. Textbook and other Supplemental Material:**

Textbook: Various published material and papers

**7. 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:**

Lectures, Design Proposal Presentation, Design Proposal Report, Guest Lectures

**9. Course Topics and Schedule:**

<b>Topic</b>	<b>Weeks</b>
Introduction to the senior design project course (teams formation and advisors designation)	1
Team Dynamics and Management	2
Utilizing Library Resource	1
Technical documentation	2
Techniques for effective Oral presentations	2
Report writing	2
Professional ethics	1
Project management	3
Project Presentations and Demo	2
<b>Total:</b>	<b>16</b>

**10. Schedule of Laboratory and other Non-Lecture Sessions:**

N/A

**11. Out-of-Class Assignments with Due Dates:**

<b>Assignment</b>	<b>Due Date (tentative)</b>
Design Proposal Presentation	TBA
Design Proposal Report	TBA

**12. Student Evaluation:**

<b>Assessment</b>	<b>Weight</b>	<b>Due Date (tentative)</b>
Project Presentation/ Demo / Report (Advisor 70 % Examiners 20%)	90%	TBA
Ethics Exam and Participation	10%	TBA

### 13. Contribution of Course to Program Outcomes

This course contributes to the accomplishment of the following CMP program outcomes:

<b>Program outcome</b>	<b>Emphasis in this course</b>
a) an ability to apply knowledge of computing and mathematics	●
b) an ability to analyze a problem, identify and define the computing requirements	●
c) an ability to design, implement and evaluate a computer-based system, process, component, or program	●
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	●
(k): An ability to apply design and development principles in the construction of software	●

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