Semester:	6				
Course Code:	ME3060				
Course Name:	Mechanical Engineering Group Project				
Credits Value:	3 (Notional hours: 300)				
Pre-requisites:	None				
Core/ Optional:	Core				
Hourly Breakdown	Lectures (hours)	Tutorials (hours)	Practical classes (hours)	Assignments (hours)	Independent Learning & Assessment (hours)
					300

Course Aim: To provide the students with the opportunity to synthesize the competencies developed in the undergraduate curriculum to realize an engineering design, collectively developed as a member of a group, to be a user-centric engineered solution for a real world problem to value the importance of problem formulation, justification, teamwork, project planning and technical communication so that they will be able to fit into a team working in a professional environment.

Intended Learning Outcomes:

On successful completion of the course, the students should be able to;

- **apply** comprehensive system design techniques to design the architecture, components, and processes necessary for the development of a product that will meet the end-user requirements;
- **acquire** both independent system design and research skills required for the incorporation of a broad range of multi-disciplinary requirements in developing a user-centric engineering design;
- **validate** and demonstrate the proof-of-concept.
- **productively** work in a team using project management methods and tools;
- **communicate** professionally to effectively market their solution.

Course Content:

- Follow the systematic engineering design procedure in solving an engineering problem in the context of an innovative user-centric engineering solution. Customer need analysis; deriving specifications; concept generation; concept evaluation; concept selection; detailed design.
- Propose a sound project plan optimizing team-work

- Acquisition of new knowledge necessary for solving the problem
- Incorporation of a broad spectrum of design requirements in the solution which includes but not limited to the performance, manufacturing, economics, marketing, sustainability, environmental, ethical, safety, social, and regulatory.
- Implementation of the solution: Prototype building and testing.
- Presentation of the implementation of the solution using demonstrations, solid models and drawings, reports and oral presentations

Teaching/ Learning Methods:
Project work and independent study.

Assessment Strategy:

Continuous Assessment 35%	**Final Assessment** 65%		
Details: Mid Semester Examination: Oral Presentations/report 35%	Theory (%)	Practical (%)	Other (%) (Project) Oral presentations/report 65%

Recommended Reading:

- Appropriate Texts will be given by the supervisors.