



UNIVERSITI TEKNOLOGI MARA

ECE503: COMPUTER ENGINEERING SYSTEM DESIGN

Course Name (English)	COMPUTER ENGINEERING SYSTEM DESIGN APPROVED
Course Code	ECE503
MQF Credit	3
Course Description	This course will implement the Capstone Design mission which will involve students in collaborative design project that require them to frame a design problem, explore solutions, develop a single solution with appropriate consideration for safety and sustainability. It aims to provide students with the experience of engineering a prototype or implementing a solution to prepare students for the expectations and standards of the professional workplace. Emphasis is placed upon satisfactory completion of the design process.
Transferable Skills	Communication skills Analytical skill Creativity Decision making Organizational skill Project management skill
Teaching Methodologies	Lectures, Lab Work
CLO	CLO1 To design and develop solutions for complex engineering problems. CLO2 To present and report engineering based systems and subsystems following a given set of specifications, adhering to design constraints and ethical standard. CLO3 Utilize project management skills in implementing multi-disciplinary project in a team.
Pre-Requisite Courses	No course recommendations
Topics	1. Project management and finance. 1.1) n/a 2. Engineering Design Method 2.1) Design steps and methodology relating to electrical engineering systems and subsystems: Project Justification, Establishment of design criteria, Design Overview, Problem Decomposition, and Identification of constraints: cost, size, power, environmental factors, reliability, safety, maintainability, and reusability, Establishment of timetables, Partitioning of work, Project monitoring, and Project evaluation. 3. Prototype Construction 3.1) Evaluation Technical Rules, design heuristics, troubleshooting, functionality.

Assessment Breakdown	%
Continuous Assessment	100.00%

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Group Project	Project Proposal	20%	CLO1
	Group Project	Team Work Assignment	20%	CLO3
	Presentation	Project Demonstration	20%	CLO2
	Written Report	Final Report	40%	CLO2

Reading List	This Course does not have any book resources
Article/Paper List	This Course does not have any article/paper resources
Other References	This Course does not have any other resources