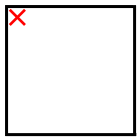

UNIVERSITI TEKNOLOGI MARA

MEC684: DESIGN OF MECHATRONIC SYSTEMS

Course Name (English)	DESIGN OF MECHATRONIC SYSTEMS APPROVED
Course Code	MEC684
MQF Credit	3
Course Description	The course aims to introduce the student with the systems engineering framework and related design methodologies for hardware and software integration of Mechatronic systems. This course covers the design process of mechatronic systems, actuator types, transducer and measurement systems, signal conditioning and control system, and case studies of various mechatronics systems.
Transferable Skills	Design and analyse Mechatronic Systems
Teaching Methodologies	Lectures, Blended Learning, Collaborative Learning, Project-based Learning
CLO	CLO1 Explain the physical components and the process of modelling of Mechatronic systems, the principles of transducers and actuators, and the signal and control of Mechatronic systems. [PO1, PLO1, LO1] {C2} CLO2 Analyze the system design, the transducer and actuator characterization, and the signal and control system for Mechatronic system applications. [PO2, PLO2, LO3] {C4} CLO3 Build a Mechatronic system to achieve specified requirements in the course project. [PO5, PLO3, LO2] {P4}
Pre-Requisite Courses	No course recommendations
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