UNIVERSITI TEKNOLOGI MARA

MEC410: BASIC MECHANICS

Course Name (English)	BASIC MECHANICS APPROVED
Course Code	MEC410

MQF Credit	3

Course Description	This course covers basic principles in both statics and dynamics. The first part of the course begins with basic concepts of mechanics i.e. space, time, mass, and force, the concept of vectors and laws governing addition and resolution of vectors, and followed by the equilibrium of particles and rigid bodies. It then proceeds to simple practical applications involving the analysis of forces in structures, machines, and problems involving friction. The course also covers the first and second moments of areas and masses. The second part of the course deals with a body undergoing a plane motion where both kinematics and kinetics will be covered with the emphasis given to analysis of problems found in practical situations.

Transferable Skills	Explain the basic concepts and principles of engineering mechanics.
	Apply well-understood basic principles of statics and dynamics to solve various problems in engineering mechanics
	Solve engineering mechanics problems using systematic and logical approaches

CLO		
	CLO1	Explain the basic concepts and principles of engineering mechanics.
	CLO2	Apply well-understood basic principles of statics and dynamics to solve various problems in engineering mechanics
	CLO3	Solve engineering mechanics problems using systematic and logical approaches

Pre-Requisite Courses	No course recommendations

Reading List	Recommended Text	Ferdinand P. Beer and E. Russell Johnston Jr. 2008, *Vector Mechanics for Engineers: Statics and D*, 8 Ed., McGraw-Hill, Singapore
	Reference Book Resources	R. C. Hibbeler, 2006, *Engineering Mechanics: Statics and Dynamics*, 4 Ed., Prentice Hall, Singapore
		Meriam, Jame L., and Kraige, L. Glenn, 2003, *Engineering Mechanics: Statics and Dynamics*, 6 Ed., John Wiley & Sons
Article/Paper List	This Course does not have any article/paper resources	
Other References	This Course does not have any other resources	