ENGINEERING MECHANICS II LAB (ME- 211 L)

Pre-requisite: None
Credit Hours: 01
Contact Hours: 48

RECOMMENDED BOOK(S)

VectorMechanicsforEngineers(Dynamics)byBeerandJohnston

REFERENCE BOOK(S)

Engineering Mechanics 6thEdition by Merriam &L.G.Kraige John Wiley & Sons
Vector Mechanics for Engineers (Dynamics) 4thEditionby Ferdinand P. Beer & E. Russell Johnston Jr.Mc Graw-Hill Science

COURSE OBJECTIVES

Togainfundamentalconceptsofbodiesunderdynamicconditions
Toimplementlawsofmotionstocomponents/structuresundertheinfluenceofforces

S. No.	CLO/PLOS MAPPING	DOMAIN	PLO
1	**Execute** experiments and find out unknowns such as forces, moments, positions and velocities etc	P4	04
2	**Solve** theoretical values of variables of concern and compare them with experimental values	C3	04
3	**Contribute** effectively as an individual member of a team	A2	09

COURSE CONTENTS

To determine Mechanical Advantage of Inclined Plane. To compare Actual and Ideal Mechanical Advantage.
To compare actual and ideal mechanical advantage of inclined plane. To derive relationship between angle and mechanical advantage (actual and ideal) at different angles.
To determine the mechanical advantage of screw jack.
To compare efficiencies and M.A of square and v-thread. To draw relationship between n and M.A with the help of graph.
To compare efficiencies and M.A of square and v-thread. To draw relationship between efficiency and Mechanical Advantage with the help of graph.
To determine Moment of Inertia of fly wheel by free falling method.
To verify the relationship between angular and linear velocity
To find tension in jib and tie of derrick crane. To compare experimental and graphical value:

To find the velocity ratio, mechanical advantage and load lost in friction and the efficiency of worm and worm wheel.

To find the velocity ratio, mechanical advantage and the load lost in friction and the efficiencies of a western differential pulley.