COURSE DETAIL

DYNAMICS
Country Taiwan
Host Institution National Taiwan University
Program(s) National Taiwan University
UCEAP Course Level Lower Division
UCEAP Subject Area(s) Mechanical Engineering
UCEAP Course Number 16
UCEAP Course Suffix
UCEAP Official Title DYNAMICS
UCEAP Transcript Title DYNAMICS
UCEAP Quarter Units 4.50
UCEAP Semester Units 3.00

Course Description

This course provides a fundamental knowledge of dynamics, including kinematics and kinetics of particle, system of particles, and rigid bodies in planar and three-dimensional motion. A systematic approach, namely Vector Analysis and Modeling Procedure (VAMP), is introduced to precisely describe linear and angular positions, velocities, accelerations, forces, and torques for generating a set of equations of motion, without missing any terms. Other modeling of work/energy equations, impulse/momentum equations, impact of particles and rigid bodies, and Euler equations are also addressed. Not only are students trained to have the ability of modeling dynamic systems in terms of equations of motion, but they are also experienced with engineering insight of physical laws.

Language(s) of Instruction
English

Host Institution Course Number
ME1006

Host Institution Course Title
DYNAMICS

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department
Mechanical Engineering

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