

## 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 Course Details

[https://nol2.aca.ntu.edu.tw/nol/coursesearch/print\\_table.php?course\\_id=502%2021...](https://nol2.aca.ntu.edu.tw/nol/coursesearch/print_table.php?course_id=502%2021...)

## Host Institution Campus

## Host Institution Faculty

## Host Institution Degree

## Host Institution Department

Mechanical Engineering

## Course Last Reviewed

2022-2023

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