

COURSE DETAIL

ENGINEERING INNOVATION AND MODELLING

Country

Singapore

Host Institution

National University of Singapore

Program(s)

National University of Singapore

UCEAP Course Level

Lower Division

UCEAP Subject Area(s)

Mechanical Engineering Engineering

UCEAP Course Number

20

UCEAP Course Suffix**UCEAP Official Title**

ENGINEERING INNOVATION AND MODELLING

UCEAP Transcript Title

ENGNR INNOVTN&MODEL

UCEAP Quarter Units

6.00

UCEAP Semester Units

4.00

Course Description

This module introduces the various standards and techniques of sketching, how to prepare engineering drawings and specifications, and how to interpret drawings. Students use advanced commercial CAD software to do 3D solid modeling. Above all, this module expands the students' creative talent and enhances their ability to communicate their ideas in a meaningful manner. Major topics include: principles of projections; isometric; orthographic and isometric sketching; 3D solid modeling; sectioning and dimensioning; drawing standards; and limits, fits, and geometrical tolerances. This module provides the student with the fundamental knowledge to do calculations on design components like bolts, screws, fasteners, weld joints, springs, gears, material selection, fatigue, bearings, and shafts.

Language(s) of Instruction

English

Host Institution Course Number

ME2102

Host Institution Course Title

ENGINEERING INNOVATION AND MODELLING

Host Institution Course Details

<https://nusmods.com/courses/ME2102/engineering-innovation-and-modelling>

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department

Mechanical Engineering

Course Last Reviewed

2023-2024

[Print](#)