

# COURSE DETAIL

## STRENGTH OF MATERIALS

**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**

51

**UCEAP Course Suffix****UCEAP Official Title**

STRENGTH OF MATERIALS

**UCEAP Transcript Title**

STRENGTH/MATERIALS

**UCEAP Quarter Units**

4.50

**UCEAP Semester Units**

3.00

## Course Description

The course examines statics of deformable solids; deformation, stress and strain analysis; mechanical properties of materials (stress-strain-temperature relationship); failure modes of materials; one-dimensional components; axial force/torsion on rods and shafts; beam bending; and column buckling. Topics include: tension, compression and shear, axially loaded members, torsion, shear forces and bending moments, stresses in beams (shear and moment diagrams), analysis of stress and strain, applications of plane stress, deflections of beams, columns.

## Language(s) of Instruction

English

## Host Institution Course Number

ME2003

## Host Institution Course Title

STRENGTH OF MATERIALS

## Host Institution Course Details

[https://nol.ntu.edu.tw/nol/coursesearch/print\\_table.php?course\\_id=502%2021800&c...](https://nol.ntu.edu.tw/nol/coursesearch/print_table.php?course_id=502%2021800&c...)

## Host Institution Campus

## Host Institution Faculty

## Host Institution Degree

## Host Institution Department

## Course Last Reviewed

2022-2023

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