COURSE DETAIL

MATERIALS FOR MECHANICAL ENGINEERING
Country Singapore
Host Institution National University of Singapore
Program(s) National University of Singapore
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Mechanical Engineering
UCEAP Course Number 120
UCEAP Course Suffix
UCEAP Official Title MATERIALS FOR MECHANICAL ENGINEERING
UCEAP Transcript Title MECH ENGINEERING
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description

This course equips students with knowledge on the unique properties of materials useful in engineering design selection. Topics include commonly used materials in different engineering designs and emerging materials and processes, and life cycle assessment. Students learn concepts of surface engineering, strengthening and hardening techniques, hardenability, heat treatment, friction and wear properties. The course introduces key material properties and testing such as tensile testing, compression testing, torsion test, 3-point bending test along with their specific relevance. Students learn the different ways of degradation of materials when it reacts with environment.

Language(s) of Instruction
English

Host Institution Course Number
ME3252

Host Institution Course Title
MATERIALS FOR MECHANICAL ENGINEERING

Host Institution Course Details
https://nusmods.com/courses/ME3252/materials-for-mechanical-engineering

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department
Mechanical Engineering

Course Last Reviewed
2024-2025

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