



材料機械性質

MECHANICAL PROPERTIES OF MATERIALS

基本素養 Basic Literacy

- ☐ 專業知能
Professional Competence
- 工程倫理
Professional Ethics in Engineering
- ☐ 人文關懷
Humanistic Care
- 國際視野
International Perspective

核心能力 Competence

- 基礎學理
Fundamental Theory
- 專業知識
Professional Competence
- 創新實作
Innovation and Implement
- 工程倫理
Professional Ethics in Engineering
- ☐ 人文素養
Quality of humanism
- ☐ 社會關懷
Social Care
- ☐ 跨領域知識
Interdisciplinary Knowledge
- ☐ 溝通協調能力與團隊合作精神
Communication and Teamwork
- 外語能力及國際觀
Foreign Language Ability and Global Perspective

課程概述 Course Description

本課程主要在探討巨觀尺度下材料機械性質，材料機械性質與材料結構之關係及材料破壞機構。課程內容包

開課系所 Department/Institute: 材料系
Materials Science and Engineering
開課教師 Instructor: 劉浩志 Liu, Hao-Chih
開課學年 Academic Year: 0106
開課學期 Semester: 1
開課序號 Serial Number: 115
課程屬性碼 Course No (Attribute Code): MSE 3009
課程系統碼 Course System Number: E536900
分班碼 Class Code: 1
學分數 No. of Credits: 3
課程語言 Medium of Instruction: 中文

課程網址 Course Website:

moodle.ncku.edu.tw

先修課程或先備能力 Prerequisite Course(s):

無。曾修過『材料科學導論』者佳。

教師聯絡資訊 Contact with Teacher

Prof. Bernard Haochih Liu, Ph.D. 劉浩志 副教授

成大微奈米科技研究中心 行政業務組組長

Associate Professor, Dept. of Materials Science and Engineering

含：材料缺陷、彈性、塑性、潛變、破斷及疲勞。

課程學習目標 Course Objectives

- 材料行為
- 材料微結構
- 材料性質分析
- 主動式思考
- 自學能力

課程進度 Course Outline

週次 Week	進度說明 Progress Description
1	Ch1
2	Ch2
3	Ch3
4	Ch4
5	Ch5
6	Midterm I
7	Ch6
8	Ch7
9	Ch8
10	Ch9
11	Midterm II
12	Ch10
13	Ch11
14	Ch12
15	Ch13
16	Ch14
17	Student feedback, Q&A
18	Final exam or final project contest

以上每週進度教師可依上課情況做適度調整。The schedule may be subject to change.

有關課程其他調查 Other Surveys of Courses

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助教資訊 Contact with Tutor

王婷 TEL: 2091375 (實驗室)

學習規範 Course Policy

榮譽制度 (Honor Codes)

評量方式 Grading

方法	百分比%
期中考 Midterm Exam	60
期末考 Term exam	25
平時測驗 Quizzes	10
其他 others:課堂參與	5

教學方法 Teaching Strategies

方法	百分比%
講授 Lecture	70
討論 Discussion	10
實作 Workshop	10
報告 Presentation	10

※請遵守智慧財產權觀念 不得非法影印

Please follow the Intellectual

1.本課程是否規劃業界教師參與教學或演講? 否

Is there any industry specialist invited in this course?

How many times? No

2.本課程是否規劃內含校外實習 (並非參訪)? 否

Is there any in (out of) school practicum involved in this course? How many hours? No

Property instruction and No illegal copy

課程教材 Course Material

Keith Bowman, Mechanical Behavior of Materials, John Wiley & sons, Inc. 2004

參考書目 References

Reference: William F.

Hosford, Mechanical Behavior of Materials, 2nd Ed., Cambridge University Press 2010 (新月圖書)

Reference: **Thomas H. Courtney**, Mechanical Behavior of Materials, 2nd Ed., Waveland Press, Inc., 2005

備註 Remarks