



## 教學計劃表 Syllabus

課程名稱(中文) Course Name in Chinese	計算材料科學		學年/學期 Academic Year/Semester	112/1	
課程名稱(英文) Course Name in English	Calculation in material science				
科目代碼 Course Code	MS_M0060	系級 Department & Year	碩士	開課單位 Course-Offering Department	材料科學與工程學系
修別 Type	選修 Elective	學分數/時間 Credit(s)/Hour(s)	3.0/3.0		
授課教師 Instructor	/紀渥德				
先修課程 Prerequisite					
課程描述 Course Description					
The course will teach students how to use MatLab package in academic work. Students will learn the basic knowledge of numerical solutions of different kind of problems					
課程目標 Course Objectives					
圖示說明 Illustration : ● 高度相關 Highly correlated ○ 中度相關 Moderately correlated					
授課進度表 Teaching Schedule & Content					
週次 Week	內容 Subject/Topics			備註 Remarks	
1	MatLab - introduction				
2	Variables, equations, editing data				
3	Working with files in Matlab				
4	Matrix calculations part 1				
5	Matrix calculation part 2				
6	Matrix calculation part 3				
7	ODE in Matlab part 1				
8	ODE in Matlab part 2				
9	期中考試週 Midterm Exam				
10	Programming in Matlab part 1				
11	Programming in Matlab part				
12	Programming in Matlab part				
13	Programming in Matlab part 4				
14	Simulations in Matlab part 1				
15	Simulations in Matlab part 1				
16	Simulations in Matlab part 1				

17	Simulations in Matlab part 1	
18	期末考試週 Final Exam	

教學策略 Teaching Strategies

- 課堂講授 Lecture
  分組討論 Group Discussion
  參觀實習 Field Trip  
 其他 Miscellaneous: Compyrer laboratory

教學創新自評 Teaching Self-Evaluation

創新教學 (Innovative Teaching)

- 問題導向學習 (PBL)
  團體合作學習 (TBL)
  解決導向學習 (SBL)  
 翻轉教室 Flipped Classroom
  磨課師 Moocs

社會責任 (Social Responsibility)

- 在地實踐 Community Practice
  產學合作 Industry-Academia Cooperation

跨域合作 (Transdisciplinary Projects)

- 跨界教學 Transdisciplinary Teaching
  跨院系教學 Inter-collegiate Teaching

- 業師合授 Courses Co-taught with Industry Practitioners

其它 other:

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學期成績計算及多元評量方式 Grading & Assessments

配分項目 Items	配分比例 Percentage	多元評量方式 Assessments							
		測驗 會考	實作 觀察	口頭 發表	專題 研究	創作 展演	卷宗 評量	證照 檢定	其他
平時成績 General Performance	30%		✓						
期中考成績 Midterm Exam	10%	✓							
期末考成績 Final Exam	30%	✓							
作業成績 Homework and/or Assignments	30%		✓						
其他 Miscellaneous (_____)									

評量方式補充說明

Grading & Assessments Supplemental instructions

教科書與參考書目 (書名、作者、書局、代理商、說明)

Textbook & Other References (Title, Author, Publisher, Agents, Remarks, etc.)

課程教材網址(含線上教學資訊, 教師個人網址請列位於本校內之網址)

Teaching Aids & Teacher's Website(Including online teaching information.

Personal website can be listed here.)

Teaching materials available on a school's website

其他補充說明 (Supplemental instructions)