



# 課 綱 Course Outline

## 材料科學與工程學系學士班

中文課程名稱 Course Name in Chinese	材料基礎實驗（二）				
英文課程名稱 Course Name in English	Fundamental Experiments in Materials（II）				
科目代碼 Course Code	MS__30200	班 別 Degree	學士班 Bachelor' s		
修別 Type	學程 Program	學分數 Credit(s)	2.0	時 數 Hour(s)	4.0
先修課程 Prerequisite					
課程目標 Course Objectives					
在使材料本科同學，對於各種相關的材料實驗及技巧有基本的認識 Having basic knowledge of various related materials experiments and techniques for students in Material Science and Engineering.					
系教育目標 Dept.' s Education Objectives					
1	奠定理論基礎 Set the theoretical foundation				
2	訓練實用技能 Train the practical skill				
3	培養優質人格 Form the positive cher				
4	啟發創新思 Promote creative thinking				
5	開展國際視野 Develop global vision				
系專業能力 Basic Learning Outcomes				課程目標與系專業能力相關性 Correlation between Course Objectives and Dept.' s Education Objectives	
A	具備材料科學所需的物理、化學及數學的知識。 Acquire required basic physical, chemical, and mathematic knowledge for materials science and engineering.			○	
B	具備材料科學的專業知識，並能應用於解決工程上之問題。 Acquire required professional knowledge for materials science and engineering, applicable in solving engineering problems.			●	

C	具備邏輯思考、實驗執行、報告撰寫與數據解釋之能力。 Equipped with capabilities of logic thinking, execution of experiment, and data interpretation.	●
D	具備專業道德及責任感，與良好的溝通及團隊合作的能力。 Acquire professional morality and responsibility, and capability of quality communication and team cooperation	○
E	具備適當的英文能力，應用於學習與交流。 Acquire English capability used for learning and interaction	○
圖示說明Illustration：● 高度相關 Highly correlated ○ 中度相關 Moderately correlated		
課程大綱 Course Outline		
材料熱處理實驗（包含：淬火、回火、時效處理....等）、陶瓷製程實驗及電特性量測實驗.....等。 Material heat treatment experiments (including: quenching, tempering, aging treatment ... etc.), ceramic process experiments and electrical characteristics measurement experiments ... etc.		
資源需求評估（師資專長之聘任、儀器設備的配合．．．等） Resources Required (e.g. qualifications and expertise, instrument and equipment, etc.)		
本所師資，須建立「材料實驗室」 Teachers of this department. A 'Materials Laboratory' is required.		
課程要求和教學方式之建議 Course Requirements and Suggested Teaching Methods		
課堂實習為主、原理講授為輔。 Experiments supplemented by lectures on principles		
其他 Miscellaneous		