



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	薄膜技術				
英文課程名稱 Course Name in English	Thin Film Technology				
科目代碼 Course Code	MS_31100	班 別 Degree	學士班 Bachelor' s		
修別 Type	學程 Program	學分數 Credit(s)	3.0	時 數 Hour(s)	3.0
先修課程 Prerequisite	無				
課程目標 Course Objectives					
讓學生在修習此一課程後，能對薄膜工程有基礎的認識，以利就業與研究工作的進行。 This course provides students with a fundamental understanding of thin film engineering for employment and research.					
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

主要介紹薄膜技術的應用與重要性、薄膜沈積技術的種類、基本原理及優劣點、薄膜製程條件的變異對薄膜沈積動力學與性質的影響等。

This course introduces the application and importance of thin film technology, the types, basic principles, advantages and disadvantages of thin film deposition technology, and the impact of variation of thin film process components on the dynamics and properties of thin film deposition.

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.)

以具有所開課程專長之教師擔任授課；資料整理所需之電腦、影印機；討論所需之投影機、幻燈機等教學設備

Teachers with expertise in the courses offered; computers for data organization, copy machines, projectors.

課程要求和教學方式之建議

Course Requirements and Suggested Teaching Methods

課程進行以口授為主，並按預訂進度進行教學，必要時以相關文獻資料加以補充。課程之進行可佐以平時測驗、作業以及小組研討方式實施。

The course will be conducted orally, and will be taught according to the scheduled schedule, supplemented by relevant literature when necessary. The course can be conducted by means of regular tests, assignments and group discussions.

其他

Miscellaneous