教學大綱(Syllabus)

updated: 2006/11/17

課程編碼 (course no.)	U012			**學分 (credits)**	0
課程名稱 (course name)	(中) 材料專題(一)				
	(Eng.) Special Topic in Material Science and Engineering(I)				
開課系所班級 (dept. & year)	材料工程學系大學部三年級 (Dept. of Mat. Engr, Junior)			**授課教師 (teacher)**	
課程類別 (course type)	必修 (Mandatory)	**授課語言 (language)**	中/英 (Chinese/English)	**開課學期 (semester)**	全學年
課程簡述 (course description)	(中) 藉由邀請產業與學術界知名的研究人員及老師前來分享他的研究成果與經驗，希望能帶給材料系的學生更多有關於不同領域中的新材料、新技術、以及新的研究觀點。除了在課程中有專業的材料知識與技術可以分享，也可以激發材料系學生們在研究創意上的表現，更希望透過外籍講者的英文演講可以增加材料系學生接觸外語的機會，進而增加本身的語文能力。				
	(Eng.) New material knowledge, new techniques, and new thought in different field would be expected to bring to our students here by sharing research results and experience of invited researchers and teachers from other organizations. The course is not only sharing the professional knowledge and technique but also exciting the originality of students. There would be more chance to contact to foreign language by the invited speech of foreign speaker, and improvement of English ability in listening and speaking of students could be expected.				
課程目標 (course objectives)	(中) 1. 充實材料新知 2. 了解現行技術與瓶頸 3. 激發研究新思維 4. 了解產業現況與動態 5. 學習專業報告 6. 增加外文能力				
	(Eng.) 1. news for materials 2. applied techniques and choke point of technology 3. exciting the originality for research 4. information and the future of modern industry 5. how to prepare a professional report 6. improve the ability for foreign langages				

先修課程(prerequisites)

課程編碼 (course no.)	課程名稱 (course name)	與課程銜接的重要概念、原理與技能 (relation to the current course)

教學模式 (teaching methodology)	模式 (methodology)	講授 (teaching)	討論/報告 (discussion & report)	實驗/參訪 (exp./fab visit)	遠距/網路教學 (remote/web teaching)	合計 (sum)
	學分分配 (credit distrib.)	0				0
	授課時數分配 (hour distrib.)	2				2

授課進度與內容（週次、單元名稱與內容、習作/考試進度、備註）
(course content and homework/tests schedule)

週次 (week)	單元名稱與內容 (subject and content)	習作/考試進度 (homework and tests)	備註 (remark)
01	每學期演講者及演講主題，依當學期安排		
02	94 學年度安排情形，請參考附件。		
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學習評量方式 **(evaluation)**
心得報告評分
教科書（書名、作者、書局、代理商、說明） **(textbook)**
參考書目（書名、作者、書局、代理商、說明 **(other references)**
課程教材（教師個人網址請列在本校內之網址。） **(teaching aids & teacher's website)**

與學系教育目標之關聯性(材料系)　(相關請勾選 ☑)
(relation to educational mission of materials engineering department)

☑ 1. 提供材料性質、製程與應用及跨領域知識與訓練
To provide interdisciplinary know-how and training on materials properties, processing, and applications

☑ 2. 培育具獨立思考、創新與實作能力之材料科技人才
To train materials technology students for independent thinking, innovation, and practical skills

☑ 3. 培養團隊合作精神與溝通協調整合能力
To cultivate the spirit of teamwork and the capacity of integrated cooperation

☑ 4. 建立多元價值與國際觀
To inculcate multifarious values and cosmopolitan worldview

☑ 5. 強化綠色材料科技教育
To implement educational programs in eco-materials technology

與學系教育核心能力之關聯性(材料系) (相關請勾選 ☑)
(relation to educational core abilities for materials engineering department)

☑ (A) 運用數學、科學及材料工程知識能力
(ability to apply knowledge of mathematics, science, and materials engineering)

☑ (B) 設計與執行材料實驗及分析數據之能力
(ability to design and conduct experiments, as well as analyze data)

☑ (C) 執行材料工程實務所需之技術與能力
(ability to use techniques and skills for materials engineering practices)

☐ (D) 製程整合及及元件實作之能力
(ability to integrate process and make devices)

☑ (E) 溝通協調之能力與團隊合作之精神
(ability to communicate effectively and cultivate the spirit of teamwork)

☑ (F) 獨立思考及解決問題之能力
(ability to think independently and solve problems)

☑ (G) 培養國際觀及認識綠色材料對全球環境的影響
(cultivation of cosmopolitan worldview and understanding effects of eco-materials on global environment)

☑ (H) 終身學習之習慣與能力
(ability to cultivate life-long learning habit)

☑ (I) 瞭解材料工程人員的社會責任與專業倫理
(understanding materials engineers' social responsibility and professional ethics)