



課 綱 Course Outline  
材料科學與工程學系一般組

中文課程名稱 Course Name in Chinese	鋼鐵冶煉學				
英文課程名稱 Course Name in English	Steel metallurgy				
科目代碼 Course Code	MS_56090	班 別 Degree	碩士班 Master' s		
修別 Type	選修 Elective	學分數 Credit(s)	3.0	時 數 Hour(s)	3.0
先修課程 Prerequisite					
課程目標 Course Objectives					
希望藉由冶金實例，培養學生對冶金熱力學之演算能力，並藉由互動課程設計，增加學生之參與及對課程的理解。					
系教育目標 Dept.' s Education Objectives					
1	建立專業知識基礎 Set the professional knowledge foundation				
2	培養專業實驗技能 Train the professional experimental skill				
3	養成獨立研究能力 Insure capability of independent research				
4	養成優質社會人格 Form the positive social character				
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進階物理、化學及數學的知識。 Acquire required advanced physical, chemical, and mathematic knowledge for materials science and engineering.			●	
B	具備材料科學的進階專業知識，並能應用於解決工程上之問題。 Acquire required advanced professional knowledge for materials science and engineering, applicable in solving engineering problems			●	

C	具備獨立研究之能力。 Equipped with capabilities of independent research.	<input type="radio"/>
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.	<input checked="" type="radio"/>
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.	<input type="radio"/>
圖示說明 Illustration : ● 高度相關 Highly correlated ○ 中度相關 Moderately correlated		
課程大綱 Course Outline		
The course will teach students a steel making process from mining the ore to the final products available on a market (i.e. pipes, rods, 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.)		
Financial support for a field trip to China Steel Corporation in Kaohsiung		
課程要求和教學方式之建議 Course Requirements and Suggested Teaching Methods		
Lectures, exercises, field trip		
其他 Miscellaneous		