國立東華大學

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.	○
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	具備進階的英文能力，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

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