

課程資訊	
課程名稱	高等熱質量傳遞 Advanced Heat and Mass Transfer
開課學期	112-2
授課對象	分子科學與技術國際研究生博士學位學程
授課教師	<a href="#">崔宏瑋</a>
課號	ChemE7006
課程識別碼	524EM1200
班次	02
學分	3.0
全/半年	半年
必/選修	選修
上課時間	星期一 2(9:10~10:00)星期三 3,4(10:20~12:10)
上課地點	
備註	本課程以英語授課。初選不開放大學部選修，欲修本課在開學後找老師索授權碼。 限碩士班以上 總人數上限：70 人
課程簡介影片	
核心能力關聯	<a href="#">核心能力與課程規劃關聯圖</a>
課程大綱	
為確保您的權利,請尊重智慧財產權及不得非法影印	
課程概述	Heat and mass transport are the core of many manufacturing processes, including semiconductor device fabrications, catalyst syntheses, and pharmaceutical productions. This course will introduce the fundamentals of heat and mass transport in chemical engineering as well as the relevant applications.

課程目標	<p>Energy Transport</p> <ul style="list-style-type: none"> <li>- Thermal Conductivity and the Mechanisms of Energy Transport</li> <li>- Shell Energy Balances and Temperature Distributions in Solids and Laminar Flow</li> <li>- The Equations of Change for Nonisothermal Systems</li> <li>- Temperature Distributions with More than One Independent Variable</li> <li>- Temperature Distributions in Turbulent Flow</li> <li>- Interphase Transport in Nonisothermal Systems</li> </ul> <p>Mass Transport</p> <ul style="list-style-type: none"> <li>- Diffusivity and the Mechanisms of Mass Transport</li> <li>- Concentration Distributions in Solids and Laminar Flow</li> <li>- Equations of Change for Multicomponent Systems</li> <li>- Concentration Distributions with More than One Independent Variable</li> <li>- Concentration Distributions in Turbulent Flow</li> <li>- Interphase Transport in Nonisothermal Mixtures</li> </ul>
課程要求	The course is the core course of graduate program in chemical engineering.
預期每週課後學習時數	
Office Hours	(Mon) 10:00-12:00
指定閱讀	
參考書目	Bird, Stewart, and Lightfoot, Transport Phenomena, 2nd edition
評量方式 (僅供參考)	Midterm exam (40%); Final exam (40%); homework (20%)
<b>課程進度</b>	
週次	日期 單元主題
無資料	