課程資訊	
課程名稱	工程數學一 Engineering Mathematics (I)
開課學期	114-1
授課對象	工學院院學士學位
授課教師	林立強
課號	ChemE2007
課程識別碼	504E27110
班次	02
學分	3.0
全/半年	半年
必/選修	必修
上課時間	星期三 2(9:10~10:00)星期五 3,4(10:20~12:10)
上課地點	綜 504 綜 504
備註	本課程以英語授課。本系同學儘量在初選階段選定本課程。 院學士核心必修-甲、乙組 限本系所學生(含輔系、雙修生) 總人數上限：62 人
課程簡介影片	
核心能力關聯	核心能力與課程規劃關聯圖
課程大綱	
為確保您我的權利,請尊重智慧財產權及不得非法影印	
課程概述	This course is one of the key core courses in the chemical engineering discipline for undergraduate students, and this class is aimed to equip students with the much-needed mathematic knowledge and skills to approach a variety of engineering problems. The main topics that will be covered in this course are differential equations (1st order, 2nd order, higher orders, systems of ODEs, as well as series solutions and some special functions) and Laplace transforms. This course will also introduce matrices, eigenvalues, and diagonalization.
課程目標	The objective of this course is to equip students with fundamental mathematic skills to solve engineering problems. In this course, the primary focuses are on the

	differential equations and Laplace transforms. Matrice analysis will also be covered. The breakdowns of the course content are as the followings: 1. First-order ODEs 2. Second-order (& higher-order) linear ODEs 3. Series solution of ODEs and special functions 4. Laplace transforms 5. Matrices, eigenvalues, and diagonalization With the course, students will have the core ability to solve differential equations and to perform Laplace transform for engineering problems, particularly with a focus on chemical engineering related ones. The students will also get familiar with matrices and related techniques.
課程要求	
預期每週課前或/與課後學習時數	
Office Hours	每週二 12:30~14:00 備註： Held in person, every Tuesday from 1230pm to 1400pm, in my office at ChemE Building I Room 304
指定閱讀	
參考書目	
評量方式 (僅供參考)	

課程進度

週次	日期	單元主題
無資料		