

一一四學年度第二學期化學工程與生物科技系博士班資格考試方式及範圍
2026 Spring Semester Department of Chemical Engineering & Biotechnology
Ph.D Program Qualifying Exam Syllabus

科目 Subject Title	日期 Date	地點 Place	第一節(AM 9 : 00~12 : 00)	第二節(PM 1 : 30~4 : 30)
高等化工熱力學 Advanced Chemical Engineering Thermodynamics	115 年 7 月 9 日 (四) 2026 Jul 9 (Thu)	化工館 102 會議室 Chemical Engineering Building 1F Room 102	一、參考書目/ Reference books: Prausnitz, J.M., Lichtenthaler, R.N. and de Azevedo, E.G., <i>Molecular Thermodynamics of Fluid-Phase Equilibria</i> , 3rd ed., Prentice-Hall Inc., Englewood Cliffs, N.J., USA (1999). Sandler, S.I., <i>Chemical, Biochemical, and Engineering Thermodynamics</i> , 4th ed., Wiley, N.Y., USA (2006) 二、考試範圍/ Topics: 1. Thermodynamic principles and properties 2. Intermolecular forces 3. Equations of state (empirical approach) 三、其他資訊/ Other information: 1. 禁止攜帶影印資料、筆記本及智 慧型手機 Access to the Internet, printed materials, and electronic devices is	

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			<p>prohibited during the exam.</p> <p>2.Close Book</p> <p>3.可帶計算機、直尺 Calculator and ruler are allowed.</p>	
生醫材料 Biomaterials	115 年 7 月 9 日 (四) 2026 Jul 9 (Thu)	化工館 102 會議室 Chemical Engineering Building 1F Room 102	<p>一、參考書目/ Reference books: Biomaterials Science: An Introduction to Materials in Medicine, 2e, Buddy Ratner, Allan Hoffman, Frederick Schoen, Jack Lemons, Academic Press, San Diego, Cal. USA.</p> <p>二、考試範圍/ Topics: 1. Materials Science and Engineering 2. Biology and Medicine 3. Practical Aspects of Biomaterials</p> <p>三、其他資訊/ Other information: 1.禁止攜帶影印資料、筆記本及智慧型手機 Access to the Internet, printed materials, and electronic devices is prohibited during the exam.</p> <p>2.Close Book</p> <p>3.可帶計算機、直尺 Calculator and ruler are allowed.</p>	

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生醫工程 Biomedical Engineering	115 年 7 月 9 日 (四) 2026 Jul 9 (Thu)	化工館 102 會議室 Chemical Engineering Building 1F Room 102		<p>一、參考書目/ Reference books: Biomaterials Science: An Introduction to Materials in Medicine, 3e, Buddy Ratner , Allan Hoffman , Frederick Schoen , Jack Lemons, Academic Press, San Diego, Cal. USA.</p> <p>二、考試範圍/ Topics: 1. Biomaterials Science and Engineering 2. Basic concepts and designs of biomedical engineering 3. Safety and Efficacy of biomedical engineering products</p> <p>三、其他資訊/ Other information: 1. 禁止攜帶影印資料、筆記本及智慧型手機 Access to the Internet, printed materials, and electronic devices is prohibited during the exam. 2. Close Book 3. 可帶計算機、直尺 Calculator and ruler are allowed.</p>

科目 Subject Title	日期 Date	地點 Place	第一節(AM 9 : 00~12 : 00)	第二節(PM 1 : 30~4 : 30)
半導體製程整合 技術 Semiconductor Process Integration	115 年 7 月 9 日 (四) 2026 Jul 9 (Thu)	化工館 102 會議室 Chemical Engineering Building 1F Room 102		一、參考書目/ Reference books: Hong Xiao, Introduction to Semiconductor Manufacturing Technology, Second Edition 二、考試範圍/ Topics: Chapter 1 to chapter 11 三、其他資訊/ Other information: 1.禁止攜帶影印資料、筆記本及智 慧型手機 Access to the Internet, printed materials, and electronic devices is prohibited during the exam. 2.Close Book