

課程流水號 Serial Number	24024
課號 Course Number	LS5040
班次 Class	*
科目名稱(中文) Course Title(in Chinese)	細胞分子生物學
科目名稱(外文) Course Title(In English or other languages)	Molecular Cell Biology
授課老師(中文) Instructor(in Chinese)	黃佳瑜,陳世勳,葉靖輝,吳沛翊,金秀蓮,羅月霞
授課老師(外文) Instructor(In English or other languages)	Chia-Yu Huang, Ching-Hui Yeh, Shioh-Lian Catherine Jin, Yueh-Hsia Luo
辦公時間(中文) Office Hour(in Chinese)	Tuesday 13:00-14:00
辦公時間(外文) Office Hour(In English or other languages)	Tuesday 13:00-14:00
課程目標(中文) Course Objective(in Chinese)	此課程主旨在以分子的層次解說細胞的生命現象及功能。課程目標：藉整合生命科學相關的生物化學、分子生物學、細胞學、遺傳學、生理學等基礎知識，以細胞的角度、分子的層次更深入探討生命現象及功能，同時增加學生在生命科學領域專業知識。
課程目標(外文) Course Objective(In English or other languages)	This course is to introduce life phenomena and function of the cell at the molecular level. The course integrates general knowledge of Biochemistry, Molecular Biology, Cell Biology, Genetics, and Physiology to explore Life phenomena at molecular and cellular levels and bring advanced knowledge of life sciences for graduate students.
授課內容(中文) Course Description(in Chinese)	<p>Week Date Topics Instructors</p> <p>1 2/17 Chapter 13 Intracellular vesicular traffic SL Chen</p> <p>2 2/24 Chapter 13 Intracellular vesicular traffic SL Chen</p> <p>3 3/2 Chapter 14 Energy conversion: mitochondria and chloroplasts CH Yeh</p> <p>4 3/9 Chapter 14 Energy conversion: mitochondria and chloroplasts CH Yeh</p> <p>5 3/16 Chapter 15 mechanisms of cell communication CY Huang</p> <p>6 3/23 Chapter 15 mechanisms of cell communication CY Huang</p> <p>7 3/30 Chapter 19 Cell junctions, cell adhesion, and the extracellular matrix PY WU</p> <p>8 4/6 Holiday</p> <p>The first examination, chapters 13, 14, 15</p>

	<p>9 4/13 Chapter 19 Cell junctions, cell adhesion, and the extracellular matrix PY WU</p> <p>10 4/20 Chapter 17 The cell cycle YH Luo</p> <p>11 4/27 Chapter 17 The cell cycle YH Luo</p> <p>12 5/4 Chapter 18 Apoptosis SH CHEN</p> <p>The second examination (chapters 16, 17, 19)</p> <p>13 5/11 Chapter 20 Cancer SH CHEN</p> <p>14 5/18 Chapter 24 Pathogens, infection, and innate immunity YH Luo</p> <p>15 5/25 Chapter 24 Pathogens, infection, and innate immunity YH Luo</p> <p>16 6/1 Chapter 25 The adaptive immunity SL Jin</p> <p>17 6/8 Chapter 25 The adaptive immunity SL Jin</p> <p>18 6/15 Final examination (chapters 18, 20, 24, 25) SL Jin</p>
授課內容(外文) Course Description(In English or other languages)	<p>Week Date Topics Instructors</p> <p>1 2/17 Chapter 13 Intracellular vesicular traffic SL Chen</p> <p>2 2/24 Chapter 13 Intracellular vesicular traffic SL Chen</p> <p>3 3/2 Chapter 14 Energy conversion: mitochondria and chloroplasts CH Yeh</p> <p>4 3/9 Chapter 14 Energy conversion: mitochondria and chloroplasts CH Yeh</p> <p>5 3/16 Chapter 15 mechanisms of cell communication CY Huang</p> <p>6 3/23 Chapter 15 mechanisms of cell communication CY Huang</p> <p>7 3/30 Chapter 19 Cell junctions, cell adhesion, and the extracellular matrix PY WU</p> <p>8 4/6 Holiday</p> <p>The first examination, chapters 13, 14, 15</p> <p>9 4/13 Chapter 19 Cell junctions, cell adhesion, and the extracellular matrix PY WU</p> <p>10 4/20 Chapter 17 The cell cycle YH Luo</p> <p>11 4/27 Chapter 17 The cell cycle YH Luo</p> <p>12 5/4 Chapter 18 Apoptosis SH CHEN</p> <p>The second examination (chapters 16, 17, 19)</p> <p>13 5/11 Chapter 20 Cancer SH CHEN</p> <p>14 5/18 Chapter 24 Pathogens, infection, and innate immunity YH Luo</p> <p>15 5/25 Chapter 24 Pathogens, infection, and innate immunity YH Luo</p> <p>16 6/1 Chapter 25 The adaptive immunity SL Jin</p> <p>17 6/8 Chapter 25 The adaptive immunity SL Jin</p> <p>18 6/15 Final examination (chapters 18, 20, 24, 25) SL Jin</p>
教科書/參考書(中文) Textbook/References(in Chinese)	Molecular Biology of the Cell, eds. Alberts et al., 5th ed.
教科書/參考書(外文) Textbook/References(In English or other languages)	Molecular Biology of the Cell, eds. Alberts et al., 5th ed.
自編教材比例 Self-compiled Textbook/References Proportion	
授課方式 Requirements	講授Lecture

評量配分比重(中文) Grading(in Chinese)	Attendance/Performance, Assignments, Tests and Three written exams 100%
評量配分比重(外文) Grading(In English or other languages)	Attendance/Performance, Assignments, Tests and Three written exams 100%
課程所屬學制 Educational System	博士班(Doctoral Programme)
課程領域 Course Domain	進階學科
跨系課程領域 Cross Department Course Domain	

系所核心能力 Core Competencies of Department	強度指數 Overall Rating	0 不具備 Zero	1 非常低 Very Low	2 低 Low	3 普通 Medium	4 高 High	5 非常高 Very High	評量方式 Corresponding Assessments
高等生物專業知識 Advanced Biological Sciences		●	●	●	●	●	●	<input checked="" type="checkbox"/> 紙筆測驗/會考 (Test/Exam) <input type="checkbox"/> 作業練習(Assignments) <input type="checkbox"/> 口頭報告/口試 (Presentation/Oral Exam) <input type="checkbox"/> 專題研究報告(書面) (Research Report(printed on paper)) <input type="checkbox"/> 實作/實驗 (Practices/Experiments) <input checked="" type="checkbox"/> 出席/課堂表現 (Attendance/Performance) <input type="checkbox"/> 學習檔案評量(Portfolios Assessment) <input type="checkbox"/> 自我評量/同儕互評(Self Assessment/ Peer Assessment) <input type="checkbox"/> 作品/創作展演 (Products/Creative Performance) <input checked="" type="checkbox"/> 其他(Others) <input type="checkbox"/> 無(No assessment)

系所核心能力 Core Competencies of Department	強度指數 Overall Rating						評量方式 Corresponding Assessments
	0 不具 備 Zero	1 非常 低 Very Low	2 低 Low	3 普通 Medium	4 高 High	5 非常 高 Very High	
創新及整合研究 Innovative and integrative research	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="checkbox"/> 紙筆測驗/會考 (Test/Exam) <input type="checkbox"/> 作業練習(Assignments) <input type="checkbox"/> 口頭報告/口試 (Presentation/Oral Exam) <input type="checkbox"/> 專題研究報告(書面) (Research Report(printed on paper)) <input type="checkbox"/> 實作/實驗 (Practices/Experiments) <input checked="" type="checkbox"/> 出席/課堂表現 (Attendance/Performance) <input type="checkbox"/> 學習檔案評量(Portfolios Assessment) <input type="checkbox"/> 自我評量/同儕互評(Self Assessment/ Peer Assessment) <input type="checkbox"/> 作品/創作展演 (Products/Creative Performance) <input checked="" type="checkbox"/> 其他(Others) <input type="checkbox"/> 無(No assessment)
專業寫作與表達 Professional writing and presentation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/> 紙筆測驗/會考 (Test/Exam) <input type="checkbox"/> 作業練習(Assignments) <input type="checkbox"/> 口頭報告/口試 (Presentation/Oral Exam) <input type="checkbox"/> 專題研究報告(書面) (Research Report(printed on paper)) <input type="checkbox"/> 實作/實驗 (Practices/Experiments) <input type="checkbox"/> 出席/課堂表現 (Attendance/Performance) <input type="checkbox"/> 學習檔案評量(Portfolios Assessment) <input type="checkbox"/> 自我評量/同儕互評(Self Assessment/ Peer Assessment) <input type="checkbox"/> 作品/創作展演 (Products/Creative Performance) <input type="checkbox"/> 其他(Others) <input checked="" type="checkbox"/> 無(No assessment)

系所核心能力 Core Competencies of Department	強度指數 Overall Rating						評量方式 Corresponding Assessments
	0 不具 備 Zero	1 非常 低 Very Low	2 低 Low	3 普通 Medium	4 高 High	5 非常 高 Very High	
國際觀 International vision	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="checkbox"/> 紙筆測驗/會考 (Test/Exam) <input type="checkbox"/> 作業練習(Assignments) <input type="checkbox"/> 口頭報告/口試 (Presentation/Oral Exam) <input type="checkbox"/> 專題研究報告(書面) (Research Report(printed on paper)) <input type="checkbox"/> 實作/實驗 (Practices/Experiments) <input type="checkbox"/> 出席/課堂表現 (Attendance/Performance) <input type="checkbox"/> 學習檔案評量(Portfolios Assessment) <input type="checkbox"/> 自我評量/同儕互評(Self Assessment/ Peer Assessment) <input type="checkbox"/> 作品/創作展演 (Products/Creative Performance) <input checked="" type="checkbox"/> 其他(Others) <input type="checkbox"/> 無(No assessment)