

課程流水號 Serial Number	24031
課號 Course Number	LS6024
班次 Class	*
科目名稱(中文) Course Title(in Chinese)	生物技術I
科目名稱(外文) Course Title(In English or other languages)	Biotechnology I
授課老師(中文) Instructor(in Chinese)	教授群,劉阜果,陳師慶,黃佳瑜,粘仲毅,葉淑丹,羅月霞
授課老師(外文) Instructor(In English or other languages)	Fu-Guo Robert Liu, Ssu-Ching Chen, Chia-Yu Huang, Chung-Yi Nien, Shu-Dan Yeh, Yueh-Hsia Luo
辦公時間(中文) Office Hour(in Chinese)	星期二10:00~12:00
辦公時間(外文) Office Hour(In English or other languages)	星期二10:00~12:00
課程目標(中文) Course Objective(in Chinese)	這門課主要是介紹與生物相關的各種技術，讓學生能增進現在生物技術的知識。學生不但能學習到基礎生物技術也能了解最近的技術發展
課程目標(外文) Course Objective(In English or other languages)	This course aims to introduce the various techniques used in biology and help student to extend their knowledge on modern biotechnology. Student take this course will learn the basic biological techniques as well as state-of-the-art techniques.
授課內容(中文) Course Description(in Chinese)	Week Date 內容 任課教師 1 3/4 Introduction /Online resources for research 黃佳瑜老師 2 3/11 Western Blot/Immunocytochemistry 黃佳瑜老師 3 3/18 Stem cell/transposons system 梅雅俊老師

	<p>4 3/25 Histology 徐淑媛老師</p> <p>5 4/1 Cell Culture/Co-immunoprecipitation 張婷婷老師</p> <p>6 4/8 Hybridization 粘仲毅老師</p> <p>7 4/15 Mutagenesis 粘仲毅老師</p> <p>8 4/22 Fluorescence and confocal Microscopy 陳傑生博士</p> <p>9 4/29 PCR/Cloning /gene expression system 邱清旗博士</p> <p>10 5/6 Flow cytometry / qRT-PCR 陳師慶老師</p> <p>11 5/13 Primary Pyrosequencing 劉阜果老師</p> <p>12 5/20 Dry Biotechnology 劉阜果老師</p> <p>13 5/27 Microarray 葉淑丹老師</p> <p>14 6/3 Next Generation Sequencing 葉淑丹老師</p> <p>15 6/10 Monoclonal antibody 羅月霞老師</p> <p>16 6/17 Mouse Behavior-cognition and emotion 黃佳瑜老師</p> <p>17 6/20 (Sat) Final report (no class) 黃佳瑜老師</p> <p>18 6/24 Final exam week (no class) 黃佳瑜老師</p>
<p>授課內容(外文)</p> <p>Course Description(In English or other languages)</p>	<p>Week Date 內容 任課教師</p> <p>1 3/4 Introduction /Online resources for research 黃佳瑜老師</p> <p>2 3/11 Western Blot/Immunocytochemistry 黃佳瑜老師</p> <p>3 3/18 Stem cell/transposons system 梅雅俊老師</p> <p>4 3/25 Histology 徐淑媛老師</p> <p>5 4/1 Cell Culture/Co-immunoprecipitation 張婷婷老師</p> <p>6 4/8 Hybridization 粘仲毅老師</p> <p>7 4/15 Mutagenesis 粘仲毅老師</p> <p>8 4/22 Fluorescence and confocal Microscopy 陳傑生博士</p> <p>9 4/29 PCR/Cloning /gene expression system 邱清旗博士</p> <p>10 5/6 Flow cytometry / qRT-PCR 陳師慶老師</p> <p>11 5/13 Primary Pyrosequencing 劉阜果老師</p> <p>12 5/20 Dry Biotechnology 劉阜果老師</p> <p>13 5/27 Microarray 葉淑丹老師</p> <p>14 6/3 Next Generation Sequencing 葉淑丹老師</p>

	15 6/10 Monoclonal antibody 羅月霞老師 16 6/17 Mouse Behavior-cognition and emotion 黃佳瑜老師 17 6/20 (Sat) Final report (no class) 黃佳瑜老師 18 6/24 Final exam week (no class) 黃佳瑜老師
教科書/參考書(中文) Textbook/References(in Chinese)	依每位老師上課準備之教材
教科書/參考書(外文) Textbook/References(In English or other languages)	依每位老師上課準備之教材
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)	Final report (40%, the deadline is June 20th 2020) Discussion (40%, Q&A minimum 4 questions, each question is 10 points) Participation (20%)
評量配分比重(外文) Grading(In English or other languages)	Final report (40%, the deadline is June 20th 2020) Discussion (40%, Q&A minimum 4 questions, each question is 10 points) Participation (20%)
課程所屬學制 Educational System	博士班(Doctoral Programme)
課程領域 Course Domain	生物科技
跨系課程領域 Cross Department Course Domain	

系所核心能力 Core Competencies of Department	0	1	2	3	4	5	評量方式 Corresponding Assessments
	不具備 Zero	非常低 Very Low	低 Low	普通 Medium	高 High	非常高 Very High	
強度指數 Overall Rating  高等生物專業知識 Advanced Biological Sciences	●	●	●	●	●	●	<input type="checkbox"/> 紙筆測驗/會考 (Test/Exam) <input checked="" 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 type="checkbox"/> 其他(Others) <input type="checkbox"/> 無(No assessment)

<p>創新及整合研究 Innovative and integrative research</p>	●	●	●	●	●	●	<ul style="list-style-type: none"> <li><input type="checkbox"/> 紙筆測驗/會考 (Test/Exam)</li> <li><input type="checkbox"/> 作業練習 (Assignments)</li> <li><input type="checkbox"/> 口頭報告/口試 (Presentation/Oral Exam)</li> <li><input checked="" type="checkbox"/> 專題研究報告(書面) (Research Report(printed on paper))</li> <li><input type="checkbox"/> 實作/實驗 (Practices/Experiments)</li> <li><input checked="" type="checkbox"/> 出席/課堂表現 (Attendance/Performance)</li> <li><input type="checkbox"/> 學習檔案評量 (Portfolios Assessment)</li> <li><input type="checkbox"/> 自我評量/同儕互評 (Self Assessment/ Peer Assessment)</li> <li><input type="checkbox"/> 作品/創作展演 (Products/Creative Performance)</li> <li><input type="checkbox"/> 其他(Others)</li> <li><input type="checkbox"/> 無(No assessment)</li> </ul>
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<p>專業寫作與表達 Professional writing and presentation</p>	●	●	●	●	●	●	<ul style="list-style-type: none"> <li><input type="checkbox"/> 紙筆測驗/會考 (Test/Exam)</li> <li><input type="checkbox"/> 作業練習 (Assignments)</li> <li><input type="checkbox"/> 口頭報告/口試 (Presentation/Oral Exam)</li> <li><input checked="" type="checkbox"/> 專題研究報告(書面) (Research Report(printed on paper))</li> <li><input type="checkbox"/> 實作/實驗 (Practices/Experiments)</li> <li><input checked="" type="checkbox"/> 出席/課堂表現 (Attendance/Performance)</li> <li><input type="checkbox"/> 學習檔案評量 (Portfolios Assessment)</li> <li><input type="checkbox"/> 自我評量/同儕互評 (Self Assessment/ Peer Assessment)</li> <li><input type="checkbox"/> 作品/創作展演 (Products/Creative Performance)</li> <li><input type="checkbox"/> 其他(Others)</li> <li><input type="checkbox"/> 無(No assessment)</li> </ul>
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<p>國際觀 International vision</p>	●	●	●	●	●	●	<ul style="list-style-type: none"> <li><input type="checkbox"/> 紙筆測驗/會考 (Test/Exam)</li> <li><input type="checkbox"/> 作業練習 (Assignments)</li> <li><input checked="" type="checkbox"/> 口頭報告/口試 (Presentation/Oral Exam)</li> <li><input type="checkbox"/> 專題研究報告(書面) (Research Report(printed on paper))</li> <li><input type="checkbox"/> 實作/實驗 (Practices/Experiments)</li> <li><input checked="" type="checkbox"/> 出席/課堂表現 (Attendance/Performance)</li> <li><input type="checkbox"/> 學習檔案評量 (Portfolios Assessment)</li> <li><input type="checkbox"/> 自我評量/同儕互評 (Self Assessment/ Peer Assessment)</li> <li><input type="checkbox"/> 作品/創作展演 (Products/Creative Performance)</li> <li><input type="checkbox"/> 其他(Others)</li> <li><input type="checkbox"/> 無(No assessment)</li> </ul>
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