

系所課程地圖 Department Curriculum Map

系所概要 Department	
系所名稱 Department Name	生物化學研究所 Institute of Biochemistry
班別 Division	碩士班 Graduate Program

教育目標 Education Goals	
編號 Number	項目內容 Content
A	培養獨立思考的能力 Developing the ability to think independently
B	紮實的生化科技基礎 Establishing a solid foundation in biotechnology
C	熟練生化專業表達技巧 Mastering professional biochemical communication skills

學生核心能力 Student Core Competencies		
編號 Number	項目內容 Content	對應教育目標編號 Corresponding Education Goal Number
A	問題分析與邏輯推理 Problem analysis and logical reasoning	A.B
B	專業知能 Professional expertise	B
C	溝通技巧 Communication skills	C

※附註 Note:

1. 各系所所屬之班別，含學士班、碩士班、博士班等，請分別填寫。1. Complete the map separately for each division, including Bachelor's, Master's, and Doctoral program.
 例如：資管學士班需填寫表二及表三；資管碩士班也須填寫表二及表三。For example, Forms 2 and 3 must be completed for Bachelor's program in Management Information Systems, and also for Master's program in for Bachelor's program in Management Information Systems.
2. 教育目標及核心能力之代號皆以英文字母大寫為主。2. Codes for Education Goals and Core Competencies must be in uppercase English alphabet letters.
3. 可依不同班（組）別填寫教育目標及核心能力。3. Education Goals and Core Competencies can be specific to the division in question.

承辦人簽章
Signature of Responsible
Person:

規劃單位主管簽章
Head of Planning Division:

年 月 日
Date:

生物化學研究所 碩士班 Graduate Institute of Biochemistry
課程規畫表 Curriculum Plan

中文課程名稱 Course Title in Chinese	英文課程名稱 Course Title in English	規劃要點(附註) Plans (Notes)				對應核心能力編號 Corresponding Education Goal Number	建議修課年級 Recommended Course Division	開課單位 Course Offering Unit	備註 Remarks
		1	2	3	4				
院核心課程(若無免修, 請加註必修、選修) College Core Courses (not required if none, otherwise please indicate Required Courses and Elective Courses)									
必修課程 Required Courses									
高等生物化學(一)	Advanced Biochemistry I	M	A	S	3	A.B	碩一上 Master's Year 1. Semester 1	生化所 IBC	
高等生物化學(二)	Advanced Biochemistry II	M	A	S	3	A.B	碩一下 Master's Year 1. Semester 2	生化所 IBC	
生物化學專題討論(一)	Seminar on Biochemistry I	M	C	S	1	C	碩一上 Master's Year 1. Semester 1	生化所 IBC	
生物化學專題討論(二)	Seminar on Biochemistry II	M	C	S	1	C	碩一下 Master's Year 1. Semester 2	生化所 IBC	
生物化學專題討論(三)	Seminar on Biochemistry III	M	C	S	1	A.C	碩二上 Master's Year 2. Semester 1	生化所 IBC	
生物化學專題討論(四)	Seminar on Biochemistry IV	M	C	S	1	A.C	碩二下 Master's Year 2. Semester 2	生化所 IBC	
前瞻生化產業人才培育暨問題導向實務訓練(一)	Problem-Oriented Practical Training and Talent Development in Frontier Biochemical Industries I	M	A	S	1	A.B.C		生化所 IBC	
前瞻生化產業人才培育暨問題導向實務訓練(二)	Problem-Oriented Practical Training and Talent Development in Frontier Biochemical Industries II	M	A	S	1	A.B.C		生化所 IBC	
碩士畢業論文	Thesis	M	C	Y	6	A.B.C		生化所 IBC	

※附註：規劃要點填表說明：(1 到 4 各欄位請填正確代表字母) Note: Instructions for completing this form are provided below (please provide the correct English alphabet letters in fields 1 to 4)

- 1: U-學士課程、M-碩士課程、D-博士課程。1: U-Bachelor's program, M-Master's program, D-Doctoral program.
 2: A-正課、B-實習課、C-台下指導之科目如學生講述或邀請演講之專題討論、專題研究.....等。2: A-Lecture, B-Internship, C-Subjects with private guidance such as student presentations or invited speeches, topic discussions, topic research, etc.
 3: S-學期課、Y-學年課。3: S-Semester course, Y-Year-long course.
 4: 科目 (全期或全年) 總學分數 (請填阿拉伯數字)。4: Total course (full-semester or full-year) credits (in Arabic numerals).

承辦人簽章
Signature of Responsible Person:

規劃單位主管簽章
Head of Planning Division:

年 月 日 Date:

生物化學研究所 碩士班 Graduate Institute of Biochemistry
課程規畫表 Curriculum Plan

中文課程名稱 Course Title in Chinese	英文課程名稱 Course Title in English	規劃要點(附註) Plans (Notes)				對應核心能力編號 Corresponding Education Goal Number	建議修課年級 Recommended Course Division	開課單位 Course Offering Unit	備註 Remarks
		1	2	3	4				
選修課程 Elective Courses									
蛋白質化學	Protein Chemistry	M	A	S	3	A.B.C		生化所 IBC	
蛋白結晶學導論	Introduction to Protein Crystallography	M	A	S	3	A.B.C		生化所 IBC	Advanced Courses
生物有機化學	Bio-Organic Chemistry	M	A	S	3	A.B.C		生化所 IBC	
圖像解析分子結構實務	Practical Approach of Biomolecular Graphics and Structural Analysis	M	A	S	3	A.B.C		生化所 IBC	Advanced Courses
蛋白質分子結構分析	Analysis of Protein 3D Structure	M	A	S	3	B		生化所 IBC	
科學英文寫作	English Technical Writing	M	A	S	3	A.B.C		生化所 IBC	
基因轉錄機制	Mechanisms of Transcription	M	A	S	3	A.B.C		生化所 IBC	
基因轉錄後調控	Post-transcriptional regulation	M	A	S	3	A.B.C		生化所 IBC	
蛋白質轉譯後調控	Post-translational regulation	M	A	S	3	A.B.C		生化所 IBC	
缺氧、發炎與癌症	Hypoxia, Inflammation and Cancer	M	A	S	3	A.B.C		生化所 IBC	
先天免疫特論	Special Topics on Innate Immunity	M	A	S	3	A.B.C		生化所 IBC	
膜蛋白功能與結構	Functional and Structural Studies of Membrane Proteins	M	A	S	3	A.B.C		生化所 IBC	
抗生素與天然物的生合成	Biosynthesis of antibiotics and natural products	M	A	S	2	A.B.C		生化所 IBC	
抗體與酵素功能改造之新 知探討暨實驗操作(一)	Current Topics in Antibody and Enzyme Engineering: Lecture and Experiment (I)	M	AB	S	2	A.B.C		生化所 IBC	
抗體與酵素功能改造之新 知探討暨實驗操作(二)	Current Topics in Antibody and Enzyme Engineering: Lecture and Experiment (II)	M	AB	S	2	A.B.C		生化所 IBC	
蛋白質功能與結構之新知 探討暨實驗操作(一)	Current Topics in Functional and Structural Studies of Proteins: Lecture and Experiment (I)	M	AB	S	2	A.B.C		生化所 IBC	
蛋白質功能與結構之新知 探討暨實驗操作(二)	Current Topics in Functional and Structural Studies of Proteins: Lecture and Experiment (II)	M	AB	S	2	A.B.C		生化所 IBC	
基因表現調控之新知探討 暨實驗操作(一)	Current Topics in Gene Regulation: Lecture and Experiment (I)	M	AB	S	2	A.B.C		生化所 IBC	
基因表現調控之新知探討 暨實驗操作(二)	Current Topics in Gene Regulation: Lecture and Experiment (II)	M	AB	S	2	A.B.C		生化所 IBC	

※附註：規劃要點填表說明：(1 到 4 各欄位請填正確代表字母) Note: Instructions for completing this form are provided below (please provide the correct English alphabet letters in fields 1 to 4)

1：U-學士課程、M-碩士課程、D-博士課程。1: U-Bachelor's program, M-Master's program, D-Doctoral program.

2：A-正課、B-實習課、C-台下指導之科目如學生講述或邀請演講之專題討論、專題研究.....等。2: A-Lecture, B-Internship, C-Subjects with private guidance such as student presentations or invited speeches, topic discussions, topic research, etc.

3：S-學期課、Y-學年課。3: S-Semester course, Y-Year-long course.

4：科目(全期或全年)總學分數(請填阿拉伯數字)。4: Total course (full-semester or full-year) credits (in Arabic numerals).

承辦人簽章
Signature of Responsible
Person:

規劃單位主管簽章
Head of Planning Division:

年 月 日
Date:

生物化學研究所 碩士班 Graduate Institute of Biochemistry
課程規畫表 Curriculum Plan

中文課程名稱 Course Title in Chinese	英文課程名稱 Course Title in English	規劃要點(附註) Plans (Notes)				對應核心能力編號 Corresponding Education Goal Number	建議修課年級 Recommended Course Division	開課單位 Course Offering Unit	備註 Remarks
		1	2	3	4				
選修課程 Elective Courses									
基因組編輯之新知探討暨 實驗操作(一)	Current Topics in Genome Editing: Lecture and Experiment (I)	M	AB	S	2	A.B.C		生化所 IBC	
基因組編輯之新知探討暨 實驗操作(二)	Current Topics in Genome Editing: Lecture and Experiment (II)	M	AB	S	2	A.B.C		生化所 IBC	
前瞻生命科學探討(一)	Frontier in Life Science Research(I)	M	A	S	2	A.B.C		生化所 IBC	
前瞻生命科學探討(二)	Frontier in Life Science Research(II)	M	A	S	2	A.B.C		生化所 IBC	
表觀遺傳學	Epigenetics	M	A	S	3	A.B.C		生化所 IBC	
表觀轉錄體學特論	Special topics in epitranscriptomics	M	A	S	1	A.B.C		生化所 IBC	
生物資訊學在跨體學的應 用	Application of bioinformatics in X- omics	M	A	S	2	A.B.C		生化所 IBC	
整合型生物資訊工具在表 觀轉錄體學的應用	Application of integrative bioinformatic tools in epitranscriptome	M	A	S	2	A.B.C		生化所 IBC	Advanced Courses
病原菌與宿主交互作用之 新知探討暨實驗操作(一)	Current Topics in Host-pathogen: Lecture and Experiment (I)	M	AB	S	2	A.B.C		生化所 IBC	
病原菌與宿主交互作用之 新知探討暨實驗操作(二)	Current Topics in Host-pathogen: Lecture and Experiment (II)	M	AB	S	2	A.B.C		生化所 IBC	
基因轉錄後及蛋白質轉譯 後調控	Post-Transcriptional Regulation and Post-translational Regulation	M	A	S	3	A.B.C		生化所 IBC	Advanced Courses
生化儀器分析	Instrumental Analysis in Biochemistry	M	A	S	3	A.B.C		生化所 IBC	Advanced Courses

※附註：規劃要點填表說明：(1 到 4 各欄位請填正確代表字母) Note: Instructions for completing this form are provided below (please provide the correct English alphabet letters in fields 1 to 4)

1：U-學士課程、M-碩士課程、D-博士課程。1: U-Bachelor's program, M-Master's program, D-Doctoral program.

2：A-正課、B-實習課、C-台下指導之科目如學生講述或邀請演講之專題討論、專題研究.....等。2: A-Lecture, B-Internship, C-Subjects with private guidance such as student presentations or invited speeches, topic discussions, topic research, etc.

3：S-學期課、Y-學年課。3: S-Semester course, Y-Year-long course.

4：科目(全期或全年)總學分數(請填阿拉伯數字)。4: Total course (full-semester or full-year) credits (in Arabic numerals).

承辦人簽章

Signature of Responsible
Person:

規劃單位主管簽章

Head of Planning Division:

年 月 日
Date: