亞洲大學 生物資訊與醫學工程學系 碩士班課程規劃表 （113學年度入學適用）

Master Program Curriculum Plan for Department of Bioinformatics and Medical Engineering, Asia University

(Applicable for Fall 2024 Enrollees)

畢業總學分：27 學分　　　　　　　　　　　　　　　　　校課程委員會通過次別：1124
Credits of Graduation：27　　　　　　　　　Approved in the 1124 University Curriculum Committee meeting

類別 Category	科目名稱 Course Title	英文名稱 English Title	修課年級 Year of the Program	修課學期 Semester	學分數 Credits	每週上課時數 Hours per week			備註
						講授 Lecture	實作(驗) Practice (laboratory)	實習 Intern	
(3) University Required Credits 校定必修3學分	碩士論文	Master Thesis	一 1st	下 2nd	1	0	0	0	
	碩士論文	Master Thesis	二 2nd	上 1st	2	0	0	0	
(3) Required Credits 必修3學分	專題討論(一)	Seminar I	一 1st	上 1st	1	1	0	0	
	專題討論(二)	Seminar II	一 1st	下 2nd	1	1	0	0	
	專題討論(三)	Seminar III	二 2nd	上 1st	1	1	0	0	
(21) Elective Credits 選修21學分	醫學工程概論	Introduction to Medical Engineering	一、二 1st 2nd	上下 1st 2nd	3	3	0	0	研究型 Selective research courses
	醫學影像基本原理與儀器	Basic Theories of Biomedical Images and Instruments	一、二 1st 2nd	上下 1st 2nd	3	3	0	0	研究型 Selective research courses
	生醫感測技術概論	Introduction to Biosensing Technology	一、二 1st 2nd	上下 1st 2nd	3	3	0	0	研究型 Selective research courses
	醫療器材開發	Introduction to Medical Device Development and Regulation	一、二 1st 2nd	上下 1st 2nd	3	3	0	0	實用型 Selective practical courses
	生醫材料概論	Introduction to Biomaterials	一、二 1st 2nd	上下 1st 2nd	3	3	0	0	實用型 Selective practical courses
	分子生物學	Molecular Biology	一、二 1st 2nd	上下 1st 2nd	3	3	0	0	研究型 Selective research courses
	生物資訊學	Bioinformatics	一、二 1st 2nd	上下 1st 2nd	3	3	0	0	研究型 Selective research courses
	生物化學	Biochemistry	一、二 1st 2nd	上下 1st 2nd	3	3	0	0	研究型 Selective research courses
	體學	Omics	一、二 1st 2nd	上下 1st 2nd	3	3	0	0	研究型 Selective research courses

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						講授 Lecture	實作(驗) Practice (laboratory)	實習 Intern	
	細胞生物學	Cell Biology	一、二 1st 2nd	上下 1st 2nd	3	3	0	0	研究型 Selective research courses
	系統生物學	Systems Biology	一、二 1st 2nd d	上下 1st 2nd	3	3	0	0	研究型 Selective research courses
	機器學習	Machine Learning	一、二 1st 2nd	上下 1st 2nd	3	3	0	0	研究型 Selective research courses
	生物技術導論	Introduction to Biotechnology	一、二 1st 2nd	上下 1st 2nd	3	3	0	0	實用型 Selective practical courses
	藥物設計概論	Introduction to Drug Design	一、二 1st 2nd	上下 1st 2nd	3	3	0	0	實用型 Selective practical courses
	資料探勘	Data Mining	一、二 1st 2nd	上下 1st 2nd	3	3	0	0	實用型 Selective practical courses
	生醫影像處理	Biomedical Image Processing	一、二 1st 2nd	上下 1st 2nd	3	3	0	0	實用型 Selective practical courses
	生物資訊演算法	Bioinformatics Algorithms	一、二 1st 2nd	上下 1st 2nd	3	3	0	0	研究型 Selective research courses
	計算分子生物學	Computational Molecular Biology	一、二 1st 2nd t	上下 1st 2nd	3	3	0	0	研究型 Selective research courses
	高等資料庫系統	Advanced Database Systems	一、二 1st 2nd	上下 1st 2nd	3	3	0	0	實用型 Selective practical courses
	生物資訊程式設計	Bioinformatics Programming	一、二 1st 2nd	上下 1st 2nd	3	3	0	0	研究型 Selective research courses
	生物資訊統計分析	Statistical Analysis in Bioinformatics	一、二 1st 2nd	上下 1st 2nd	3	3	0	0	研究型 Selective research courses
	生物技術專題講座(一)	Biotechnology Seminar I	一、二 1st 2nd	上下 1st 2nd	1	1	0	0	研究型 Selective research courses
	生物技術專題講座(二)	Biotechnology Seminar II	一、二 1st 2nd	上下 1st 2nd	1	1	0	0	研究型 Selective research courses
	類神經網路	Artificial Neural Networks	一、二 1st 2nd	上下 1st 2nd	3	3	0	0	研究型 Selective research courses
	生醫光學概論	Introduction to Biooptics	一、二 1st 2nd	上下 1st 2nd	3	3	0	0	研究型 Selective research

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						講授 Lecture	實作(驗) Practice (laboratory)	實習 Intern	
									courses
	醫療器材創新與設計	Innovations and Design of Medical Devices	一、二 1st 2nd	上下 1st 2nd	3	3	0	0	實用型 Selective practical courses
	生醫材料專論	Special Topics in Biomaterials	一、二 1st 2nd	上下 1st 2nd	3	3	0	0	研究型 Selective research courses
	材料分析	Materials Characterization	一、二 1st 2nd	上下 1st 2nd	3	3	0	0	實用型 Selective practical courses
	臨床工程概論	Introduction to Clinical Engineering	一、二 1st 2nd	上下 1st 2nd	3	3	0	0	實用型 Selective practical courses

備註：

(一)、畢業學分數學分，含校定必修 3 學分，所定必修 3 學分，所定選修 21 學分。

The graduation credit requirements include a total of 3credits for university required courses, 3 credits for department required courses, and 21credits for department elective courses.

(二)、碩士論文（3 學分）為校定必修學分，學生除須修畢系上規定之畢業學分外，尚須通過畢碩士論文或技術報告，始可畢業。

The doctoral dissertation (3 credits) is a university required course. In addition to completing the required graduation credits set by the department, students must also pass their doctoral dissertation or technical report in order to graduate.

(三)、學生需透過「臺灣學術倫理教育資源中心」線上平台修習指定課程 6 小時，並於課程總測驗成績達及格標準，始得申請學位考試。

Master or PHD graduate students are required to complete designated courses totaling 6 hours through the online platform of the Center for Taiwan Academic Research Ethics Education and achieve a passing grade on the final course examination before they can apply for the master or PHD graduate degree examination.

(四)、以上未盡事宜，得經由系主任召開系務會議討論後裁決之。

Any unresolved matters will be decided by a departmental meeting convened by the department chair.

系所主管簽章：　　　　　　　　　　　　　　學院院長簽章：