# 亞洲大學生物資訊與醫學工程學系碩士在職專班課程規劃表

(114學年度入學適用)

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

### University

(Applicable for Fall 2025 Enrollees)

畢業總學分:30學分

校課程委員會通過次別:1133

Credits of Graduation: 30

Approved in the 1133 University Curriculum Committee meeting

| 類別  | 科目名稱<br>Course Title         |              | 英文名稱  | 修課<br>年級<br>Year of the<br>Program | 修課<br>學期<br>Semester        | 學分數<br>Credits | 每週上課時數<br>Hours per week |                             |              | ш.            |
|---|------------------------------|--------------|---|------------------------------------|-----------------------------|----------------|--------------------------|-----------------------------|--------------|---------------|
| Category  |                              |              | 要文名稱<br>English Title   |                                    |                             |                | 講授<br>Lecture            | 實作(驗) Practice (laboratory) | 實習<br>Intern | 借註<br>Remarks |
| 校定必修<br>6 學分<br>(6)<br>University<br>Required<br>Credit | 碩士論文                         |              | Master Thesis   |                                    | F<br>2 <sup>nd</sup>        | 3              | 0                        | 0                           | 0            |               |
|   | 碩士論文                         |              | Master Thesis   | _<br>2 <sup>nd</sup>               | <u>F</u><br>1 <sup>st</sup> | 3              | 0                        | 0                           | 0            |               |
| 必修 3 學分<br>(3) Required<br>Credits                      | 專題討論(一)                      |              | Seminar (1)   |                                    | 上<br>1 <sup>st</sup>        | 1              | 1                        | 0                           | 0            |               |
|   | 專題討論(二)                      |              | Seminar (2)   | 1 <sup>st</sup>                    | F<br>2 <sup>nd</sup>        | 1              | 1                        | 0                           | 0            |               |
|   | 專題討論(三)                      |              | Seminar (3)   | <br>2 <sup>nd</sup>                | <u>F</u><br>1 <sup>st</sup> | 1              | 1                        | 0                           | 0            |               |
| 選修 21 學分  | 科技論文寫作                       |              | Scientific<br>English<br>Writing                                | 1st                                | <u>+</u><br>1 <sup>st</sup> | 3              | 3                        | 0                           | 0            |               |
|   | 生物醫學工程倫理                     |              | Medical Ethics  | 1 <sup>st</sup>                    | 上<br>1 <sup>st</sup>        | 3              | 3                        | 0                           | 0            |               |
|   | 生物技術導論                       |              | Introduction to Biotechnology                                   | 1 st                               | <u>+</u><br>1 <sup>st</sup> | 3              | 3                        | 0                           | 0            |               |
|   | 臨床工程概論                       |              | Introduction to clinical engineering                            | 1st                                | 上<br>1 <sup>st</sup>        | 3 =            | 3                        | 0                           | 0            |               |
|   | 計算分子生物學                      |              | Computational<br>Molecular<br>Biology                           |                                    | <u>누</u><br>1 <sup>st</sup> | 3_             | 3                        | 0                           | 0            |               |
|   | 生物資訊學特論                      |              | Special Topics<br>in<br>Bioinformatics                          |                                    | 上<br>1 <sup>st</sup>        | 3              | 3                        | 0                           | 0            |               |
|   | 人工智慧                         |              | Artificial<br>Intelligence                                      | 1 <sup>st t</sup>                  | 下<br>2 <sup>nd</sup>        | = 3            | 3                        | 0                           | 0            |               |
|   | 網頁程式設計概論                     |              | Introduction to Webpage Programming                             |                                    | 下<br>2 <sup>nd</sup>        | 3              | 3                        | 0                           | 0            |               |
|   | 生物資訊程式設計                     |              | Bioinformatics<br>Programming                                   | 1 <sup>st</sup>                    | 下<br>2 <sup>nd</sup>        | - 3            | 3                        | 0                           | 0            |               |
|   | 應用統計學                        |              | Applied<br>Statistics   |                                    | 下<br>2 <sup>nd</sup>        | 3              | 3                        | 0                           | 0            |               |
|   | 細胞生物學                        |              | Cell Biology  | 1st                                | 下<br>2 <sup>nd</sup>        | 3              | 3                        | 0                           | 0            |               |
|   | 醫學工程領域 edical<br>engineering | 生物資訊與 醫學工程概論 | Introduction to<br>Bioinformatics<br>and Medical<br>Engineering | 1st                                | L<br>1st                    | 3              | 3                        | 0                           | 0            |               |
|   |                              | 生醫材料概 論      | Introduction to Biomaterials                                    | <br>1 <sup>st</sup>                | <u>+</u><br>1 <sup>st</sup> | 3              | 3                        | 0                           | 0            |               |
|   |                              | 生醫感測技<br>術概論 | Introduction to<br>Biosensing<br>Technology                     | - \<br>1 <sup>st</sup>             | 下<br>2 <sup>nd</sup>        | 3              | 3                        | 0                           | 0            |               |

|  |                               | 生醫產業概論       | Perspectives<br>on Biomedical<br>Industry             | 1st                               | F<br>2 <sup>nd</sup>          | 3 | 3 | 0 | 0 |  |
|--|-------------------------------|--------------|---|-----------------------------------|-------------------------------|---|---|---|---|--|
|  |                               | 生醫影像處理       | Biomedical<br>Image<br>Processing                     | =<br>2 <sup>nd</sup>              | <u>+</u><br>1 <sup>st</sup>   | 3 | 3 | 0 | 0 |  |
|  |                               | 生醫材料專論       | Special Topics<br>in<br>Biomaterials                  | =<br>2 <sup>nd</sup>              | <u>†</u><br>1 st              | 3 | 3 | 0 | 0 |  |
|  |                               | 醫療器材創新設計     | Innovations<br>and Design of<br>Medical<br>Devices    | <u>-</u><br>1 <sup>st</sup>       | 下<br>2 <sup>nd</sup>          | 3 | 3 | 0 | 0 |  |
|  |                               | 材料分析         | Characterizati<br>on and<br>Analysis of<br>Materials  | 1 st                              | F<br>2 <sup>nd</sup>          | 3 | 3 | 0 | 0 |  |
|  | 生物資訊領域 Biological information | 醫療資訊與 巨量資料分析 | Healthcare<br>Informatics<br>and Big Data<br>Analysis | 1 st                              | <u>+</u><br>1 <sup>st</sup>   | 3 | 3 | 0 | 0 |  |
|  |                               | 生物資訊學        | Bioinformatics  | 1 <sup>st</sup>                   | <u>+</u><br>1 <sup>st</sup> , | 3 | 3 | 0 | 0 |  |
|  |                               | 資料探勘         | Data Mining   | 1 <sup>st</sup>                   | 下<br>2 <sup>nd</sup>          | 3 | 3 | 0 | 0 |  |
|  |                               | 分子生物學        | Molecular<br>Biology                                  |                                   | 下<br>2 <sup>nd</sup>          | 3 | 3 | 0 | 0 |  |
|  |                               | 體學           | Omics   | _<br>2 <sup>nd</sup>              | <u>+</u><br>1 <sup>st</sup>   | 3 | 3 | 0 | 0 |  |
|  |                               | 系統生物學        | Systems<br>Biology                                    | _<br>2 <sup>nd</sup>              | <u>+</u><br>1 <sup>st</sup>   | 3 | 3 | 0 | 0 |  |
|  |                               | 生物資訊演 算法     | Bioinformatics<br>Algorithms                          | =<br>2 <sup>nd</sup>              | F<br>2 <sup>nd</sup>          | 3 | 3 | 0 | 0 |  |
|  |                               | 生物資訊軟體應用     | Application of Bioinformatics Software                | <br>2 <sup>nd</sup>               | 下<br>2 <sup>nd</sup>          | 3 | 3 | 0 | 0 |  |
|  | 生技領域 Biotechnology            | 醫療美容概論       | Introduction to Aesthetic Medicine                    | 1st                               | <u>+</u><br>1 <sup>st</sup>   | 3 | 3 | 0 | 0 |  |
|  |                               | 生技產品通<br>路策略 | Channel Strategy for Biotech Products                 |                                   | 下<br>2 <sup>nd</sup>          | 3 | 3 | 0 | 0 |  |
|  |                               | 生技企業品牌策略     | Branding<br>Strategy<br>Biotech<br>Company            | 1 <sup>st</sup>                   | 下<br>2 <sup>nd</sup>          | 3 | 3 | 0 | 0 |  |
|  |                               | 產品官能品質鑑定     | Function and<br>Quality<br>Evaluation of<br>Products  | -<br><sup>1</sup> 2 <sup>nd</sup> | <u>+</u><br>1 <sup>st</sup>   | 3 | 3 | 0 | 0 |  |

#### 備註(Remarks):

### 一、畢業學分數 30 學分, 含校定必修 6 學分, 必修 3 學分, 選修 21 學分。

The graduation credit requirement is 30 credits, which includes 6 credits of university required courses,3 credits of required courses, and 21 credits of elective courses.

## 二、碩士論文(6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 master's thesis (6 credits) is a university required course. In addition to completing the required graduation credits set by the department, students must pass their master's thesis 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:

**龍** 院 長計慶賢

