

## 112 學年度醫學系「醫師工程師組」必(選)修科目表 11202/11303/11310/11410

Required (Optional) Course List for enrollment after the 112 academic year

Physician-Engineer of School of Medicine

\* 112 學年度入學新生適用 (118 級) 實際以當學期開課為主。

Applicable to new students in the 112 academic year (level 118) based on the actual class schedule.

\* 依學則規定，本系學生應修最低畢業總學分不得少於 241 學分

According to the academic rules, students of this department should take a minimum total of 241 credits for graduation.

\* 除本系醫學人文與社會領域課程及國考科目外，一、二年級必修課程學生得自行確認學分數後修習本校他系課程。計算機概論得修習同等程度或進階程式設計相關課程。

In addition to the courses in the medical humanities and social fields of the department and the national examination subjects, the students of the compulsory courses in the first and second year can take courses in other departments of the school after confirming the number of credits by themselves. The course of Introduction to Computers and Programming can be taken equivalent or advanced programming-related courses.

\* 核心課程分「基本素養」及「領域課程」，「領域課程」應至少修習 2 個領域。

The core curriculum is divided into Foundation course and Distribution area course. Distribution area courses should be taken at least 2 area courses.

\* 自 110 學年度入學新生必須修讀學術倫理課程，始得畢業。(必修 0 學分，採網路教學方式實施，入學第二學期結束前，須至臺灣學術倫理教育資源中心平台修習本課程，並應通過線上課程總測驗及格標準。)

Freshmen admitted since the 110th academic year must take an academic ethics course in order to graduate. (Required 0 credits, the online teaching method is adopted. Before the end of the second semester of admission, this course must be taken on the platform of the Taiwan Academic Ethics Education Resource Center, and must pass the online course general test pass standard.)

\* 本校學則第二十九條：「學士班學生應修最低畢業學分總數...。軍訓不計入最低畢業學分數，體育及護理選修者是否計入最低畢業學分數，由各系所自訂之，惟合計至多四學分。」

Article 29 of the school's academic rules: "Bachelor's students should take the total number of minimum graduation credits... Military training is not included in the minimum graduation credits. Whether physical education and nursing electives are included in the minimum graduation credits is up to each department. Scheduled, but a total of up to four credits.

\* 自 111 學年度入學新生必須修讀「性別平等教育線上課程」，始得畢業。(必修 0 學分，於入學第一學期至本校網路教學平台修習，並通過線上測驗達及格標準。)

| 一年級<br>First Grade |                                      |               | 二年級<br>Second Grade |                |  |   | 三年級<br>Third Grade |   |  |     |     |
|--------------------|--------------------------------------|---------------|---------------------|----------------|--|---|--------------------|---|--|-----|-----|
| 科 目<br>Courses     |                                      | 學分<br>Credits |                     | 科 目<br>Courses | 學分<br>Credits                                  |   | 科 目<br>Courses     |   | 學分<br>Credits                          |     |     |
|                    |                                      | 上             | 下                   |                | 上  | 下 |                    |   | 上                                      | 下   |     |
| 必                  | 微積分(一)<br>(暑期先修或榮譽班)<br>Calculus (I) | 4             |                     | 選              | 離散數學<br>Discrete Mathematics                   | 3 |                    | 必 | 大體解剖學<br>Gross Anatomy                 | 4   |     |
| 必                  | 微積分(二)<br>Calculus (II)              |               | 4                   | 必              | 微分方程*1<br>(電機/電資模組)<br>Differential Equation*1 | 3 |                    | 必 | 大體解剖學實驗<br>Gross Anatomy<br>Laboratory | 3   |     |
| 必                  | 物理(一)<br>(榮譽班)<br>Physics(I)         | 4             |                     | 必              | 電子學(一)*1<br>(電機/電資模組)<br>Electronics (I)       | 3 |                    | 必 | 組織學<br>Histology                       | 1   | 1   |
| 必                  | 化學(一)<br>(光電系)<br>Chemistry (I)      | 3             |                     | 必              | 電子實驗(一)*1<br>(電機/電資模組)<br>Electronics Lab. (I) | 2 |                    | 必 | 組織學實驗<br>Histology Laboratory          | 0.5 | 0.5 |

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\* 112 學年度入學新生適用 (118 級) 實際以當學期開課為主。

Applicable to new students in the 112 academic year (level 118) based on the actual class schedule.

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According to the academic rules, students of this department should take a minimum total of 241 credits for graduation.

|        |   |   |   |   |  |   |       |   |                                       |     |     |
|--------|---|---|---|---|--|---|-------|---|---------------------------------------|-----|-----|
| 必      | 化學(二)<br>(光電系)<br>Chemistry(II)   |   | 3 | 必 | 公共衛生概論<br>(陽明校區遠距)<br>Introduction to Public Health (Remote Learning)                    | 1 |       | 必 | 神經解剖學<br>Neuroanatomy                 |     | 2   |
| 必      | 普通生物學(一)<br>(生物科技系)<br>General Biology                                    | 3 |   | 必 | 生物化學(陽明校區遠距)<br>Biochemistry (Remote Learning)   | 4 |       | 必 | 神經解剖學實驗<br>Neuroanatomy Laboratory    |     | 0.5 |
| 必      | 普通生物學(二)<br>(生物科技系)<br>General Biology (II)                               |   | 3 | 必 | 生物化學實驗<br>Biochemistry Lab.  | 1 |       | 必 | 生理學<br>Physiology                     | 2.2 | 3.4 |
| 必      | 普通生物學實驗<br>(生物科技系)<br>General Biology Lab.                                |   | 1 | 必 | 微生物學及免疫學<br>(陽明校區遠距)<br>Microbiology & Immunology (Remote Learning)                      |   | 4     | 必 | 生理學實驗<br>Physiology Laboratory        | 0.8 | 0.4 |
| 必<br>選 | 邏輯設計*1<br>(電機/電資模組)<br>Logic Design                                       | 3 |   | 選 | 微生物學及免疫學實驗<br>Lab Practice in Microbiology & Immunology                                  |   | (0.7) | 必 | 醫學遺傳學<br>Medical Genetics             |     | 1.6 |
| 必      | 線性代數<br>Linear Algebra  |   | 3 | 必 | 醫師工程師專題研究*2<br>Physician Engineer Research Project                                       |   | 1     | 必 | 寄生蟲學<br>Parasitology                  |     | 1.4 |
| 必<br>選 | 物件導向程式設計*1<br>(電機/電資模組)<br>(核心課程)*(基本素養)*4<br>Object-Oriented Programming |   | 3 | 必 | 醫學人文的實踐<br>(陽明校區暑期課程)<br>The Practice of Medical Humanities (Yang Ming Summer Course)    |   | 2     | 必 | 寄生蟲學實驗<br>Parasitology Lab.           |     | 0.6 |
| 必      | 醫學人文導論<br>陽明校區遠距<br>Introduction to Medical Humanities (Remote Learning)  | 2 |   | 必 | 生物統計學<br>Biostatistics   |   | 2     | 必 | 社區醫學<br>Community Medicine            | 1   |     |
| 必      | 心靈成長一二(導師時間)<br>Spiritual Growth I II                                     | 1 | 1 | 必 | 流行病學<br>Epidemiology   |   | 2     | 必 | 社區醫學實習<br>Community Medicine Practice | 0.5 | 0.5 |
| 必      | 體育<br>Physical Education  | 0 | 0 | 必 | 醫學人文與倫理領域<br>醫學人文類、醫學倫理類<br>(陽明校區遠距)(自選課程)*3<br>Medical Humanities and Ethics Curriculum | 2 | 2     | 必 | 胚胎學<br>Embryology                     | 0.6 | 1   |

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Physician-Engineer of School of Medicine

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|    |   |    |    |    |   |    |     |   |   |      |      |
|----|---|----|----|----|---|----|-----|---|---|------|------|
| 必選 | 訊號與系統 <sup>*1</sup><br>電機模組<br>Signals and Systems                                    |    | 3  | 必  | 心靈成長三四 (導師時間)<br>Spiritual Growth III<br>IV(Tutor Time)             | 1  | 1   | 必 | 醫事法律<br>Medical Laws & Regulations                  |      | 1    |
| 必選 | 資料結構與物件導向程式設計 <sup>*1</sup> 資訊工程模組<br>Data Structures and Object-oriented Programming |    | 3  | 必  | 體育<br>Physical Education  | 0  | 0   | 必 | 進階公共衛生議題<br>Topics in Advanced Public Health        |      | 1    |
| 必選 | 數位電路設計 <sup>*1</sup><br>資訊工程模組<br>Digital Circuit Design                              |    | 3  | 選  | 環境衛生概論<br>(陽明校區遠距)<br>Introduction to Environmental Health          |    | (1) | 必 | 體育<br>Physical Education                            | 0    | 0    |
| 必選 | 基礎程式設計 <sup>*1</sup><br>資訊工程模組<br>Basic Programming                                   | 0  | 0  | 必選 | 演算法概論 <sup>*1</sup> 資訊工程模組<br>Introduction to Algorithms            | 3  |     | 必 | 導師時間<br>Class Meeting                               | 0    | 0    |
| 必修 | 計算機概論與程式設計  | 3  |    | 必選 | 作業系統概論 <sup>*1</sup><br>資訊工程模組<br>Introduction to Operating Systems | 3  |     | 必 | 醫師工程師專題研究 <sup>*2</sup>                             | 1    |      |
|    |   |    |    |    |   |    |     | 必 | 數位醫學概論<br>Introduction to Digital Medicine          |      | 0.5  |
|    |   |    |    | 必選 | 計算機組織 <sup>*1</sup> 資訊工程模組<br>Computer Organization                 |    | 3   | 必 | 基礎人體結構學<br>Fundamental Human Anatomical Structure   | 1    |      |
|    |   |    |    | 必選 | 電資專業選修 <sup>*1</sup>  |    |     | 選 | 神經症狀學<br>Symptomatology of nervous system disorders |      | (1)  |
|    |   |    |    |    |   |    |     | 選 | 醫療經濟<br>Health Economics                            |      | (2)  |
|    | 電機模組<br>建議必修學分合計 <sup>*5</sup><br>Total required credits                              | 23 | 21 |    | 電機模組<br>建議必修學分合計 <sup>*5</sup><br>Total required credits            | 20 | 14  |   | 必修學分合計<br>Total required credits                    | 15.6 | 15.4 |
|    | 電資模組<br>建議必修學分合計 <sup>*5</sup><br>Total required credits                              | 23 | 18 |    | 電資模組<br>建議必修學分合計 <sup>*5</sup><br>Total required credits            | 20 | 14  |   |   |      |      |
|    | 資工模組<br>建議必修學分合計 <sup>*5</sup><br>Total required credits                              | 20 | 21 |    | 資工模組<br>建議必修學分合計 <sup>*5</sup><br>Total required credits            | 18 | 17  |   |   |      |      |

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|  |  |
|--|--|
| <p>備註:</p> <p>*1: 電資必修科目與專業選修，課程內容請見<b>醫師工程師組學生選修課程施行細則</b>，必修學分 數合計未含電資專業選修學分數。</p> <p>*2: 醫師工程師專題研究: 必修 2 學分，分別於二年級下學期與三年級上學期各修讀 1 學分。</p> <p>*3: 「醫學人文與倫理領域」自選課程分醫學人文類與醫學倫理類，需至少各選 2 學分，且兩類課程不得相互抵免。</p> <p>*4: 自 110 學年度起，本校核心課程及語言與溝通課程依國立陽明交通大學共同課程通則辦法實施，但其中領域課程至少應修習兩個領域，且必修普通心理學、計算機概論與程式設計。</p> <p>*5: 若課程列為本校核心課程之基本素養或領域課程，則學生得將該課程認列為核心課程學分數，必修學分合計未含共同課程(24 學分)，詳細內容請參考國立陽明交通大學共同課程通則修業規定(依該入學年度規定適用)。</p> |  |
|--|--|

| 四年級 |  |     |     | 五年級 |                                     |       |   | 六年級 |   |       |  |
|-----|--|-----|-----|-----|-------------------------------------|-------|---|-----|---|-------|--|
| 科 目 |  | 學分  |     | 科 目 |                                     | 學分    |   | 科 目 |   | 學分    |  |
|     |  | 上   | 下   |     |                                     | 上     | 下 |     |   |       |  |
| 必   | 藥理學<br>Pharmacology                            | 2.7 | 1.7 | 必   | 實驗外科<br>Practice of Surgery         | 2     |   | 必   | 醫院臨床實習<br>Clerkship(required course)                | 30    |  |
| 必   | 外科學概論<br>Introduction to Surgery               | 0.9 | 1.0 | 必   | 急診醫學(一)<br>Emergency Medicine(1)    | 1.3   |   | 必   | 醫院臨床實習(自選科別)<br>Clerkship(elective course)          | 14    |  |
| 必   | 醫療與社會人文<br>Medical Humanity and Social Science | 2   |     | 必   | 急診醫學(二)<br>Emergency Medicine(2)    | 1     |   | 選   | 醫病關係討論團體(巴林團體)<br>Balint Group for Medical Students | (0.5) |  |
| 必   | 病理學<br>Pathology                               | 2.5 | 1.5 | 選   | 法醫學<br>Forensic Pathology           | (0.8) |   |     |   |       |  |
| 必   | 病理學實驗<br>Pathology Lab                         | 0.5 | 0.5 | 必   | 職前臨床技能訓練<br>Clinical Skill Training | 0.5   |   |     |   |       |  |
| 必   | 耳鼻喉科學<br>Otolaryngology                        | 1.6 |     | 必   | 婦產科學<br>Obstetrics & Gynecology     |       | 2 |     |   |       |  |
| 必   | 循環學<br>Cardiovascular medicine                 | 1.5 |     | 必   | 小兒科學<br>Pediatrics                  |       | 2 |     |   |       |  |

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|   |   |     |     |   |   |     |   |  |  |  |
|---|---|-----|-----|---|---|-----|---|--|--|--|
| 必 | 傳染病學<br>Infections disease                  |     | 1.2 | 必 | 老人醫學<br>Geriatric Medicine                                | 0.5 |   |  |  |  |
| 必 | 消化學<br>Gastroenterology                     | 1.5 |     | 必 | 眼科學<br>Ophthalmology                                      | 1.5 |   |  |  |  |
| 必 | 呼吸學<br>Pulmonary medicine                   | 1.5 |     | 必 | 麻醉學<br>Anesthesiology                                     | 1   |   |  |  |  |
| 必 | 血液學<br>Hematology                           |     | 1.2 | 必 | 臨床病例及病理討論<br>Clinical Case Discussion (CPC)               |     | 1 |  |  |  |
| 必 | 新陳代謝及內分泌學<br>Endocrinology                  | 1.4 |     | 必 | 核心內科(講堂)<br>Core-Course in Internal Medicine              |     | 1 |  |  |  |
| 必 | 腎臟學<br>Nephrology                           |     | 1.3 | 必 | 核心外科(講堂)<br>Core-Course in Surgery                        |     | 1 |  |  |  |
| 必 | 泌尿學<br>Urology                              |     | 1.3 | 必 | 核心實習訓練(內科 8 週)<br>Core Clerkship-Internal Medicine        |     | 8 |  |  |  |
| 必 | 骨骼關節學<br>Orthopedics                        |     | 1.6 | 必 | 核心實習訓練(外科 8 週)<br>Core Clerkship-Surgery                  |     | 8 |  |  |  |
| 必 | 免疫病學<br>Allergy, Immunology, & Rheumatology |     | 1.7 | 必 | 核心實習訓練(兒科 4 週)<br>Core Clerkship-Pediatrics               |     | 4 |  |  |  |
| 必 | 神經學<br>Neurology                            | 1.5 |     | 必 | 核心實習訓練(婦產科 4 週)<br>Core Clerkship-Obstetrics & Gynecology |     | 4 |  |  |  |
| 必 | 皮膚科學<br>Dermatology                         | 1   |     | 必 | 核心實習訓練(影像診斷學 2 週)<br>Core Clerkship-Radiology             |     | 2 |  |  |  |
| 必 | 醫學腫瘤學<br>Medical Oncology                   |     | 1.1 | 必 | 核心實習訓練(精神科 2 週)<br>Core Clerkship-                        |     | 2 |  |  |  |

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|   |   |     |     | Psychiatry |  |       |       |  |  |  |
|---|---|-----|-----|------------|--|-------|-------|--|--|--|
| 必 | 精神科學<br>Psychiatry  | 1.6 |     | 必          | 核心實習訓練(神經內科 2 週)<br>Core Clerkship-<br>Neurology             |       | 2     |  |  |  |
| 必 | 影像診斷學<br>Imaging Diagnosis  | 1.3 | 0.5 | 必          | 核心實習訓練(骨科 2 週)<br>Core Clerkship-<br>Orthopedics             |       | 2     |  |  |  |
| 必 | 放射治療學<br>Radiotherapy   | 0.3 | 0.2 | 必          | 臨床倫理<br>Clinical Ethics                                      |       | 1     |  |  |  |
| 必 | 核子醫學<br>Nuclear medicine  | 0.4 | 0.3 | 必          | 附醫實習 Clerkship in University<br>Hospital                     |       | 4     |  |  |  |
| 必 | 復健醫學<br>Rehabilitation  | 0.4 | 0.5 | 選          | 醫務領導和管理<br>Healthcare<br>Leadership and<br>Management        | (1)   |       |  |  |  |
| 必 | 基礎臨床技能訓練課程(一)(二)<br>Basic Clinical Skills (BCS) (I)<br>(II)                     | 1   | 1   | 選          | 醫用台語<br>Medical Taiwanese                                    |       | (1)   |  |  |  |
| 必 | 導師時間<br>Class Meeting   | 0   | 0   | 選          | 醫病關係討論團體(巴林團體)<br>Balint Group for Medical<br>Students       | (0.5) | (0.5) |  |  |  |
| 選 | 體育<br>Physical Education  | (2) | (2) | 選          | 實證醫學臨床案例討論<br>Evidence-based<br>Medicine: Case<br>Discussion | (2)   |       |  |  |  |
| 選 | 基礎醫學總論<br>Basic medical sciences  |     | (2) |            |  |       |       |  |  |  |
| 選 | 整合醫學暨中醫學現代進展<br>Recent Advances in Integrative<br>Medicine and Chinese Medicine |     | (2) |            |  |       |       |  |  |  |
| 選 | 藥理學實驗<br>Pharmacology Lab   |     | (1) |            |  |       |       |  |  |  |

## 112 學年度醫學系「醫師工程師組」必（選）修科目表 11202/11303/11310/11410

Required (Optional) Course List for enrollment after the 112 academic year  
Physician-Engineer of School of Medicine

\* 112 學年度入學新生適用（118 級）實際以當學期開課為主。

Applicable to new students in the 112 academic year (level 118) based on the actual class schedule.

\* 依學則規定，本系學生應修最低畢業總學分不得少於 **241** 學分

According to the academic rules, students of this department should take a minimum total of 241 credits for graduation.

|  |                                  |      |      |  |                   |     |    |  |                                  |    |  |
|--|----------------------------------|------|------|--|-------------------|-----|----|--|----------------------------------|----|--|
|  |                                  |      |      |  |                   |     |    |  |                                  |    |  |
|  |                                  |      |      |  |                   |     |    |  |                                  |    |  |
|  |                                  |      |      |  |                   |     |    |  |                                  |    |  |
|  | 必修學分合計<br>Total required credits | 23.6 | 16.6 |  | 必修學分合計 <b>Sum</b> | 7.8 | 44 |  | 必修學分合計<br>Total required credits | 44 |  |