Fu Jen Catholic University ,Department of Graduate Institute of Applied Science and Engineering（輔仁大學應用科學與工程研究所）

 **Ph. D Program Courses List（博士班： 必修課程／選修課程) 列表**

Effective for Students Enrolled in and from the 2020 (Aug) ~~(Jul) Academic Year (110學年度起學生適用)

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| --- | --- | --- | --- | --- | --- | --- | --- |
| Categories forCompulsory Courses | Course Title | CreditHours | 1st Year | 2nd Year | 3rd Year | 4th Year |  |
|  | 1stsemester | 2ndsemester | 1stsemester | 2ndsemester | 1stsemester | 2ndsemester | 1stsemester | 2ndsemester | Remark |
| Required Courses by Department所必修課程 | Thesis/ 論文 | 12 |  |  |  |  | 12 | 12 | 12 | 12 |  |
| Seminar 專題討論 | 4 | 1 | 1 |  |  |  |  |  |  |
| Special Topics - Biotechnology & Medicine(I) 專題研究-生物科技暨醫學領域(一) | 1 |  |  | 1 |  |  |  |  |  |
| Special Topics - Biotechnology & Medicine (II)專題研究-生物科技暨醫學領域(二) | 1 |  |  |  | 1 |  |  |  |  |
| Special Topics - Biotechnology & Medicine(III)專題研究-生物科技暨醫學領域(三) | 1 |  |  |  |  | 1 |  |  |  |
| Special Topics - Biotechnology & Medicine (IV)專題研究-生物科技暨醫學領域(四) | 1 |  |  |  |  |  | 1 |  |  |
| Special Topics -Opto-Electronic Technology(I) 專題研究-光電科技領域( (一) | 1 |  |  | 1 |  |  |  |  |  |
| Special Topics -Opto-Electronic Technology(II)專題研究-光電科技領域( (二) | 1 |  |  |  | 1 |  |  |  |  |
| Special Topics -Opto-Electronic Technology(III)專題研究-光電科技領域( (三) | 1 |  |  |  |  | 1 |  |  |  |
| Special Topics -Opto-Electronic Technology (IV)專題研究-光電科技領域( (四) | 1 |  |  |  |  |  | 1 |  |  |
| Special Topics - Information Mathematics (I)專題研究-資訊數學領域(一) | 1 |  |  | 1 |  |  |  |  |  |
| Special Topics - Information Mathematics (II)專題研究-資訊數學領域(二) | 1 |  |  |  | 1 |  |  |  |  |
| Special Topics - Information Mathematics (III)專題研究-資訊數學領域(三) | 1 |  |  |  |  | 1 |  |  |  |
| Special Topics - Information Mathematics (IV)專題研究-資訊數學領域(四) | 1 |  |  |  |  |  | 1 |  |  |
| Special Topics - Computer Engineering(I)專題研究-計算機工程領域(一) | 1 |  |  | 1 |  |  |  |  |  |
| Special Topics - Computer Engineering(II)專題研究-計算機工程領域(二) | 1 |  |  |  | 1 |  |  |  |  |
| Special Topics - Computer Engineering(III)專題研究-計算機工程領域(三) | 1 |  |  |  |  | 1 |  |  |  |
| Special Topics - Computer Engineering(IV)專題研究-計算機工程領域(四) | 1 |  |  |  |  |  | 1 |  |  |
| Special Topics - Electrical Engineering(I)專題研究-電機工程領域( (一) | 1 |  |  | 1 |  |  |  |  |  |
| Special Topics - Electrical Engineering(II)專題研究-電機工程領域( (二) | 1 |  |  |  | 1 |  |  |  |  |
| Special Topics - Electrical Engineering(III)專題研究-電機工程領域( (三) | 1 |  |  |  |  | 1 |  |  |  |
| Special Topics - Electrical Engineering(IV)專題研究-電機工程領域( (四) | 1 |  |  |  |  |  | 1 |  |  |
| Total Complusory Credits/ 所必修專業學分 | 12 |
| Elective Courses/ 所專業選修 |
| English/ Chinese Course Title | Credit | 1st Year | 2nd Year | 3rd Year | 4th Year |  |
| Hours | 1stsemester | 2ndsemester | 1stsemester | 2ndsemester | 1stsemester | 2ndsemester | 1stsemester | 2ndsemester |
| Elective Courses by Department所專業選修 | English for Science and Technology 科技英文 | 3 | 3 |  |  |  |  |  |  |  | \*At least 15 professional credits(12 credits for specialized fields+3 credits Non-specialized fields)選修15學分(12學分為專攻領域+3學分非專攻領域)\* (Non-specialized fields)Management of Technology and Innovation 科技管理為非專攻領域課程\*(As a requirement for graduation)English for Science and Technology 科技英文為畢業要件 |
| Management of Technology and Innovation 科技管理 | 3 |  | 3 |  |  |  |  |  |  |
| Biotechnology & Medicine生物科技暨醫學領域 | 12/24 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Opto-Electronic Technology光電科技領域 | 12/24 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Information Mathematics資訊數學領域 | 12/24 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Computer Engineering計算機工程領域 | 12/24 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Electrical Engineering電機工程領域 | 12/24 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Total Elective Credits 所專業選修學分 | 12+3/24 |
| Graduate Credits／ 應畢業學分 | 35 |