Tamkang University Department of Physics Curriculum Plan

(Required Courses for New Students Admitted in the Academic Year 113)

| 科 | 目 名 稱 | 學分 | Year 1 | | Year 2 | | Year 3 | | Year 4 | | 備註 | | | |
|---|---|----|-----------|-------|-----------|------|-----------|-------|-----------|-----|--|--|--|--|
| С | ourse title | 數 | 1st | 2nd | 1st | 2n | 1st | 2nd | 1st | 2nd | Notes | | | |
| | | | Gene | ral E | duca | tion | 24 C | Credi | ts | | | | | |
| 基知課12學 | 外國語文學門(Q) Foreign Languages and Drills | 8 | 2 | 2 | 2 | 2 | | | | | 大1英文必修、大2外文 自由選 English is required for freshmen. | | | |
| | 中國語文能力表達 Capability of expressing chinese in spoken and written | 2 | | | | | | | | | 語文表達 Language Expression | | | |
| | 大學學習 Learning in University | 1 | 1 | | | | | | | | 學習與發展學門(N) Learning and Development | | | |
| | 社團學習與實作 Extracurricular activities and team development | 1 | | 1 | | | | | | | 課外活動與團隊發展(K) Learning and practice of clubs:an Introduction | | | |
| | AI 與程式語言 AI & Programming Language | 1 | 1 | | | | | | | | | | | |
| | 探索永續 Exploring Sustainability | 1 | 1 | | | | | | | | | | | |
| | 文學經典學門(L) Classics In World Literature | 2 | | | | | | | | | 人文領域 至少2學 | | | |
| | 歷史與文化學門(P) History And Cultures | 2 | | | | | | | | | 主ジュ字 分 2 credits | | | |
| | 哲學與宗教學門(V) Philosophy and Religion | 2 | | | | | | | | | required (1 out of 4 | | | |
| | 藝術欣賞與創作學門(m) Art appreciation and invetion | 2 | | | | | | | | | categories) | | | |
| 識核心課程 | 全球視野學門(t) Global outlook | 2 | | | | | | | | | 社會領域 至少2學 | | | |
| 12 學分 | 未來學學門(r) Futures studies | 2 | | | | | | | | | 分 每學門至多修習 | | | |
| | 社會分析學門(w) Social analysis | 2 | | | | | | | | | 2 creatis required (1 out of 4 | | | |
| | 公民社會及參與學門(S) Civil Society And Participation | 2 | | | | | | | | | categories) | | | |
| | 資訊教育學門(O) Information & Computer Education | 2 | | | | | | | | | 科學領域 至少2學 分 | | | |
| | 全球科技革命學門(Z) Global technology revolution | 2 | | | | | | | | | 2 credits required (1 | | | |
| | 自然科學學門(u) Natural sciences | 2 | | | | | | | | | out of 4 categories) | | | |

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| 科目名稱 | 學分 | 1 | | Year 2 | | Year 3 | | Year 4 | | 備 主 Notes |
|---|-------------|-----------|------|-----------|-------|-----------|-------|-----------|--------|---|
| Course title | 數 | 1st | 2nd | 1st | 2n | 1st | 2nd | 1st | 2nd | INOLES |
| 體育 Physical education | 4 | 1 | 1 | 1 | 1 | | | | | *Not counted toward graduation credits* |
| 其他 課程 (一)-國防科技 All-Out Defense Education Military Training(I)-National Defense Technolog | 0 | | | | | | | | | 0 credit, offered in Year 1 for one semester |
| 校園與社區服務學習 | 2 | 1 | 1 | | | | | | | *Not counted toward |
| Learning campus and community srevices | | 1 | 1 | | | | | | | graduation credits* |
| Physi | $cs \Gamma$ |) enar | tmen | t Reg | nnire | ed Co | ourse | 63 (| Credit | s |
| 普通化學 | | - opar | | | | | | | | |
| 晋 通化字 General chemistry | 3 | 3 | | | | | | | | |
| 普通化學實驗 | 1 | | | | | | | | | |
| General chemistry lab. | | 1 | | | | | | | | 實驗課程 |
| 普通物理 | | 4 | 4 | | | | | | | |
| General Physics | | 4 | 4 | | | | | | | |
| 普通物理實驗 General physics lab. | | 1 | 1 | | | | | | | 實驗課程 |
| 微積分 Calculus | 6 | 3 | 3 | | | | | | | |
| 基礎物理數學 Fundamental mathematical physics | 2 | | 2 | | | | | | | |
| 計算機概論 Introduction to computers | | | 3 | | | | | | | |
| 電磁學 Electromagnetism | 6 | | | 3 | 3 | | | | | |
| 物理數學 Mathematical physics | 3 | | | 3 | | | | | | |
| 電磁學實驗 Electromagnetic physics lab. | 2 | | | 1 | 1 | | | | | 實驗課程 |
| 力學 Mechanics | 3 | | | | 3 | | | | | |
| AI 數值方法(一) Numerical Methods and Artificial Intelligence (I) | 2 | | | 2 | | | | | | |
| 專題研究 Research seminar | | | | | 1 | 1 | | | | 專題課程 |
| 量子物理 Quantum physics | | | | | | 3 | 3 | | | |

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|------------------------------|-----|-----------|-----|-----------|-----------|-----------|-----|-----------|-----|-----------------|
| Course title | | 1st | 2nd | 1st | 2n | 1st | 2nd | 1st | 2nd | Notes |
| 熱力學 Thermodynamics | | | | | | | 3 | | | |
| 光學 Optics | | | | | | 3 | | | | |
| 光學實驗 Optics lab. | | | | | | | 1 | | | 實驗課程 |
| 電子學 Electronics | 3 | | | | | 3 | | | | |
| 電子學實驗 Electronics lab. | 2 | | | | | 1 | 1 | | | 實驗課程 |
| 近代物理實驗 Modern physics lab | 2 | | | | | | | 1 | 1 | 實驗課程 |
| | | | | | | | | | | |

(Required Courses for New Students Admitted in the Academic Year 113)

(1) Required credits (including general education 24 credits) : 87 credits

(2) Minimum departmental elective credits : 19 credits

(3) Free elective credits : 22 credits

Total credits for graduation : 128 credits