

國立彰化師範大學
電機工程學系博士班畢業條件表暨課程架構表
(115學年度入學學生適用)
National Changhua University of Education
Graduation Requirements and Course Structure for PhD Program of Electrical Engineering
(Applicable for students in 115 academic year)

列印日期(Print Date:2026/02/26)

一.系必修課程

I.Department Required Courses

課程名稱 Course Name	學分/學時 Credit(s)/ Hour(s)	年級 Grade	學期 Semester
書報討論(上) Seminar I	2/2	1	1
書報討論(下) Seminar II	2/2	1	2
專題研討(上) Literature Study I	2/2	2	1
論文 Thesis	0/0	2	1
論文指導(一) Thesis Supervision I	3/0	2	1
專題研討(下) Literature Study II	2/2	2	2
論文指導(二) Thesis Supervision II	3/0	2	2

二.系選修課程

II.Department Elective Courses

課程名稱 Course Name	學分/學時 Credit(s)/ Hour(s)
切換式電源轉換器 Switching Mode Power Converters	3/3
天線設計實務 Practical Antenna Design	3/3
非線性光學 Nonlinear Optics	3/3
電力電子模擬與分析 Power Electronics Simulation and Analysis	3/3
圖形監控系統 Graphic Controller System	3/3
網路通訊協定與效能分析 Performance Evaluation of Network Protocols	3/3
機械視覺 Machine Vision	3/3
次世代無線區域網路通訊協定 Next Generation Wireless Local Area Networks	3/3

高等電磁波理論 Advanced Electromagnetic Theory	3/3
最佳控制 Optimal Control	3/3
無線通訊專題 Special Topics on Wireless Communications	3/3
雷射原理 Principles of Lasers	3/3
數位影像處理 Digital Image Processing	3/3
光電元件 Optoelectronic Devices	3/3
自動量測系統 Automatic Measurement System	3/3
免執照頻段之無線通訊系統 Wireless Communication on Unlicensed Band	3/3
高等電力電子學 Advanced Power Electronics	3/3
高等電力網路分析 Advanced Electric Network Analysis	3/3
圖型辨識 Pattern Recognition	3/3
數位控制 Digital Control	3/3
再生能源 Renewable Energy	3/3
智慧型控制 Intelligent Control	3/3
電腦圖學 Computer Graphics	3/3
電機控制 Electrical Control	3/3
數位通訊 Digital Communications	3/3

三.先修科目

III.Prerequisite Courses

先修課程 Prerequisite Course	後修課程 Subsequent Course

四.畢業條件

IV.Graduation Requirements

- 1.最低畢業學分數：26學分，包括系必修課程8學分(不含論文及論文指導)及選修課程18學分。
- 2.修讀本系開設課程，逕予計為畢業學分；修讀非本系開設課程，採計6學分為畢業選修學分。
- 3.學生須符合本系「博士班研究生修業規定」並取得「臺灣學術倫理教育資源中心」(<https://ethics.nctu.edu.tw/>)之「學術研究倫理教育」課程修習證明，方具畢業資格。

1. Minimum graduation credits: 26 credits including & credits of required courses (except thesis and thesis supervision) and 18 credits of elective courses.
2. Any credit offered by our department is qualified and only 6 credits of elective courses offered by the others is accepted.
3. The academic regulations for doctoral program approved by our department need to be accomplished and the certification of "Academic Research Ethics Education" provided by "Taiwan Academic Ethics Education Resource Center" (<https://ethics.nctu.edu.tw/>) is required.