

中原大學電機工程學系博士班修業辦法
Chung Yuan Christian University Department of Electrical Engineering
Academic Guideline for Ph.D. Program

110 年 7 月 21 日 109 學年度第 2 學期第 3 次教務會議通過
Passed by the 3rd Academic Affairs Meeting of the 109
Academic Year (2nd Semester; July 21, 2021)

第一條 本學系依據中原大學各類學位名稱訂定程序授予要件及代替碩士博士論文認定辦法、中原大學研究生學位考試作業規章，訂定本辦法。

Art. 1 This guideline is made in accordance with the “Regulations for Master’s and Doctoral Degrees Conferment of Chung Yuan Christian University” and the “Regulations of Graduation Examination for Postgraduates in Chung Yuan Christian University (中原大學研究生學位考試作業規章).”

第二條 本學系博士班授予學位之中文、英文名稱如下：

Art. 2 The Chinese and English titles of the degrees conferred by the Ph.D. program of the Department are as follows:

學系(所、學位學程) 中文、英文全稱 Department (Institution, Degree Programs) Full Title in Chinese and English	授予學位名稱 Awarded Degree Title	
	中文、英文名稱 Chinese / English Title	英文縮寫 English abbreviation
電機工程學系	工學博士	
Department of Electrical Engineering	Doctor of Philosophy	PH.D.

第三條 本學系博士班應修科目及學分依附表一之規定。

Art. 3 The required subjects and credits for the Ph.D. program shall be in accordance with the regulations in Attachment 1.

第四條 課程學分規定

畢業學分中本所開設之選修學分不得低於 9 學分。逕行修讀博士學位者，畢業學分中本所開設之選修學分不得低於 15 學分。

Art. 4 Course Regulations:

Among the graduation credits, the elective courses credits offered by our institute shall not be less than 9 credits. For those who are directly studying for a doctoral degree, among the graduation credits, the elective courses credits offered by our institute shall not be less than 15 credits.

第五條 論文指導

- 一、研究生應於第二學年註冊前，選定論文指導教授，由指導教授負責其學業與研究指導。
- 二、研究生於第二學年註冊前，未能選定論文指導教授，則暫由系主任負責指導。
- 三、指導教授應為本系之專任助理教授以上之教師。
- 四、研究生因故更換指導教授，至遲應於畢業前一學期提出，且符合下列準則：
 - (一) 經原指導教授及系主任同意或經本系學生事務委員會討論後提請系務會議決議通過。
 - (二) 新任指導教授，以研究生入學年度未收滿額學生之同組老師優先。
 - (三) 研究生須放棄在原指導教授指導下所獲得之研究成果，未徵得原指導教授同意前，不得以任何形式發表或轉移原有研究成果。

Art. 5 Dissertation guideline:

- I. A Ph.D. program student must select a dissertation advisor before enrollment of their second academic year. The dissertation advisor will be responsible for the student's academic and research guidance.
- II. If the advisor of the student is not determined before the enrollment of the second academic year, the department head will be the student's advisor.
- III. The student's advisor must be one of the full-time Assistant Professors or above in the department.
- IV. In order to change dissertation advisor, a student must submit a proposal no later than one semester before graduation, and must meet the following criteria:
 - (1) The student must obtain permission from both the original advisor and the department head, or they must submit their proposal to the Student Affairs Committee of the department and obtain their approval.
 - (2) For new advisors, the professors in the same group who still have personnel quotas are given priority to be advisors.
 - (3) The student must give up the research results obtained under the guidance of the original advisor, and shall not publish or transfer the original research results in any form without the consent of the original advisor.

第六條 資格考核

- 一、研究生在入學或逕行修讀博士學位一學期後，得參加資格考核，且應於入學或逕行修讀博士學位四年內（不含休學期間）通過。未依規定年限完成者，由本系通知課務與註冊組應予退學。
- 二、資格考核由本系組織資格考核委員會，依「本系資格考辦法」辦理相關考試事宜，資格考核委員會由本系專任助理教授以上三至五人組成，主任為當然委員並擔任召集人。

Art. 6 Qualification Examination:

- I. After one semester of enrollment or doctoral studies, postgraduates may participate in the qualification examination and must pass it within four years (excluding the period of

suspension) of enrollment or doctoral studies. Those who fail to complete the examination within the prescribed time limit shall be expelled from the program upon notification by the department to the Office of Academic Affairs - Curriculum and Registration Division (課務與註冊組).

- II. The qualification examination is organized by the department's qualification examination committee, which handles relevant examination matters according to the "Department's Qualification Examination Regulations (本系資格考辦法)." The qualification examination committee is composed of three to five full-time assistant professors or above from the department, with the director serving as an ex officio member and convener.

第七條 成果發表

研究生須發表論文或取得專利 3 件，標準如下。

一、 A 等 1 件：(1) IEEE、IEE、ACM、SPIE、ASME、SCI 期刊之全文或同一研究主題之 Correspondence 或 Letter 二篇抵 1 件。

(2) 八大工業國新發明專利。

B 等 1 件：其他期刊、發明專利。

C 等 1 件：國際會議、新型專利、中原學報。

二、較優等級著作可視為次優等級著作，反之則否。

三、除教授外，博士生為第一作者算 1 件，第一作者以外不計。

Art. 7 Publication of Research Results:

Postgraduates are required to publish at least three papers or obtain three patents, according to the following standards:

I. Grade A: one item

(1) A full-text article published in IEEE, IEE, ACM, SPIE, ASME, or SCI journals, or two Correspondence or Letter articles on the same research topic will be counted as one item.

(2) new invention patents in G8 countries.

Grade B: one item for other journals or patents.

Grade C: one item for international conferences, new type patents, or papers published in the "Chung Yuan Academic Journal (中原學報)."

II. Works of superior grade can be considered as works of lower grade, but not vice versa.

III. Except for professors, a paper or patent with the Ph.D. student as the first author can be counted as one item, but if the student is listed after the first author, it shall not be counted.

第八條 學位論文初審

研究生須經指導教授同意，向論文審核委員會提出論文大綱審查。論文審核委員會以口試方式審核其論文主題、論文大綱及相關背景學識。不通過者須下一學期後再行提出。審核委員會對於論文大綱有建議修改之權利，審核結果必須全數委員通過始得通過。

Art. 8 Preliminary Examination of Dissertation

Graduate students must obtain the consent of their advisor and submit the outline of their dissertation for review by the dissertation examination committee. The committee will review the main theme of the dissertation, the outline, and related background knowledge through an oral examination. Those who do not pass must re-submit in the following semester. The examination committee has the right to suggest modifications to the dissertation outline, and the examination result must be approved by all committee members.

第九條 博士學位候選人

研究生須通過學位論文大綱審查及符合「中原大學研究生學位考試作業規章」第六條規定，得為博士學位候選人。

Art. 9 Doctoral Degree Candidate:

A graduate student who has passed the dissertation outline review and has met the regulations stipulated in Article 6 of the "Regulations of Graduation Examination for Postgraduates in Chung Yuan Christian University (中原大學研究生學位考試作業規章)" can become a doctoral degree candidate.

第十條 學位論文專業領域審查

- 一、 學生至遲應於學位考試申請前填寫「學生學位論文專業領域審查表」，說明論文大綱內容並先予自評所屬之專業領域。且經該專業領域委員會至少三位委員擔任審查委員進行書面審查。專業領域委員會之審查委員應符合本校學位考試委員資格之規定，由系主任遴選之。
- 二、 本學系專業領域包含電力能源、電子電路、控制工程、通訊網路、人工智慧等電機相關領域。
- 三、 學生申請學位考試前如改變論文方向而偏離專業領域預核範疇，指導教授應重啟前項審查機制。
- 四、 學生對專業領域符合審查結果如有異議，得檢具書面資料與說明向所屬學院申請複審。學院應組成複審委員會審理，置委員三至五人，其應符合本校學位考試委員資格，由學院院長擔任召集人並為會議主席，院長須迴避時，則由校長指定其他學院院長擔任。

Art. 7 Review of Dissertation Area of Expertise:

I. Students should fill out the "Student Degree Thesis Area of Expertise Review Form (學生學位論文專業領域審查表)" before applying for the degree examination, explaining the content of the dissertation outline and self-assessing the area of expertise to which it belongs. The preliminary review committee will assign at least three members from the same area of expertise to conduct a written review. The members of the preliminary review committee shall meet the qualifications of the university's degree examination committee, and shall be selected by the department head.

II. The areas of expertise of this department include Electrical Energy, Electronic Circuits, Control Engineering, Communication Networks, Artificial Intelligence, and other electrical engineering-related fields.

III. If a student changes the direction of the dissertation before applying for the degree

examination and deviates from the previously-reviewed area of expertise, their dissertation advisor should restart the review mechanism mentioned above.

IV. If a student has any objection to the result of the area of expertise review, they may submit written materials and explanations to apply to their affiliated college for re-examination. The college should form a re-examination committee with three to five members, who shall meet the qualifications of the university's degree examination committee; the college dean shall serve as the convener and the chair of the meeting. If the dean needs to avoid a conflict of interest, the University President shall appoint a dean from another college to serve in this role.

第十一條 學位考試

研究生填妥本校相關表格，說明符合修業期限、課程學分、資格考核與博士論文審查等各項規定，經指導教授初審通過，得申請學位考試。

Art. 11 Degree Examination:

Graduate students should complete relevant forms of the university, demonstrate compliance with regulations on the study period, course credits, qualification examinations, and doctoral dissertation review, and obtain preliminary approval from their advisor before applying for the degree examination.

第十二條 本辦法未盡事宜悉依本校學則及相關法令規定辦理。

Art. 12 For matters not covered in this academic guideline, follow the related regulations of the Ministry of Education and Chung Yuan Christian University.

第十三條 本辦法經教務會議通過後公布施行，修正時亦同。

本辦法適用於自 110 學年度起博士班入學學生。

Art. 13 This academic guideline and any subsequent changes is passed and approved by the Academic Affairs Committee. This guideline is applicable to students enrolled in Ph.D. programs from the 110 academic year onward.

*Disclaimer: In the event of any difference in interpretation or meaning between the Chinese and English version of this guideline, the Chinese version shall prevail.

中原大學 電機工程學系博士班應修科目及學分表

List of Required Courses and Credits for Ph.D. Program
in the Department of Electrical Engineering at
Chung Yuan Christian University

(適用 113 學年度入學學生)

(Applied to students enrolled in the 113 academic year)

科目名稱 Subject Title	期程 Semester	學分數 Credits	擋修科目及續修條件 Prerequisites & Conditions for continuation	
			科目名稱 Subject Title	限制 Conditions
學系必修科目 Compulsory Subjects	論文 Thesis	全 Full	12 (6,6)	
	書報討論(一) Seminar (I)	全 Full	2 (1,1)	
	書報討論(二) Seminar (II)	全 Full	2 (1,1)	
	合計 (論文另計) Total (Thesis is not included)		4	

畢業學分結構表

Credits for Graduation

性質 Types of Courses	學分數 Credits	說明:
1、學系必修 Compulsory Courses of the Department	4	一、全校性規定: 1. 自 105 學年度起外籍研究生入學學生，須修讀華語課程及通過華語文能力測驗 (TOCFL) 基礎級考試，取得基礎級證書，始得畢業。 2. 有關修課，成績等相關規定請參考學則。 二、學系畢業規定: 逕行修讀博士學位者，應修 30 學分(含碩士班期
2、學系選修 Elective Courses of the Department	18	
3、研究生通識選修 General Education Electives for Graduate Students	2	

<p style="text-align: center;">畢業應修最低學分 數 (論文另計)</p> <p>Minimum number of credits for graduation (Thesis is not included)</p>	24	<p>間所修學分數), 方得畢業 (不含論文)。</p> <p>Explanation:</p> <ol style="list-style-type: none"> 1. University-wide regulations: <ol style="list-style-type: none"> a. Since the 105 academic year, foreign graduate students must take Chinese courses and pass the Band A level test of the Test of Chinese as a Foreign Language (TOCFL) and obtain an A2 certificate before graduation b. Please refer to the Academic Regulations for courses and grades 2. Department Graduation Regulations: Students who directly pursue a doctoral degree must complete 30 credits (including credits earned during the master's program) in order to graduate (excluding thesis).
--	----	---

經 110 年 7 月 7 日 109-2-5 校級課程委員會通過。

Passed by the 109-2-5 University Curriculum Committee on July 7, 2021

經 110 年 7 月 21 日 109-2-3 教務會議通過。

Passed by the 109-2-3 Academic Affairs Meeting on July 21, 2021