

國立成功大學智慧半導體及永續製造學院 關鍵材料學位學程博士班修業辦法

Academic Regulations for the Doctoral Degree Program on Key Materials Under the NCKU Academy of Innovative Semiconductor and Sustainable Manufacturing

111 年 3 月 10 日 111 年度第 2 次管理委員會通過
Approved at the 2nd meeting of the Management Committee on March 10, 2022

111 年 3 月 28 日 111 年度第 2 次監督委員會備查
Ratified at the 2nd meeting of the Supervisory Committee on March 28, 2022

112 年 3 月 15 日 112 學年度第 1 次管理委員會修正通過
Revised at the 1st meeting of the Management Committee in the 2023-24 academic year on March 15, 2023 112 年 5 月 26 日 112 學
年度第 1 次監督委員會備查

Ratified at the 1st meeting of the Supervisory Committee in the 2023-24 academic year on May 26, 2023
114 年 4 月 2 日 114 年度第 1 次管理委員會通過

Approved at the 1st meeting of the Management Committee on April 2, 2025

114 年 4 月 29 日 114 年度第 1 次監督委員會備查

Ratified at the 1st meeting of the Supervisory Committee on April 29, 2025

第一條 國立成功大學(以下簡稱本校)智慧半導體及永續製造學院(以下簡稱本學院)關鍵材料學位學程(以下簡稱本學程)為明確規範博士班學生之學位修讀，依據國家重點領域產學合作及人才培育創新條例第 23 條，訂定本辦法。

Article 1 These Regulations are established by the Program on Key Materials (hereafter the Program) under the Academy of Innovative Semiconductor and Sustainable Manufacturing (hereafter the Academy) of National Cheng Kung University (NCKU) to regulate the academic requirements for its doctoral degree in accordance with Article 23 of National Key Fields Industry-University Cooperation and Skilled Personnel Training.

第二條 修業年限：

- 一、博士班研究生(以下簡稱博士生)之修業以 2 年至 7 年為限。
- 二、逕修讀博士班研究生(以下簡稱逕博生)之修業以 3 年至 7 年為限。

Article 2 Duration of Study

1. Doctoral degree program students (hereafter doctoral students) shall complete the graduation requirements for the Program degree within a study duration of a minimum of two years and a maximum of seven years.
2. Students directly admitted into the doctoral program (hereafter direct-admission doctoral students) shall complete the graduation requirements for the Program degree within a study duration of a minimum of three years and a maximum of seven years.

第三條 本學程博士生於畢業前必須修滿課程至少 18 學分，其中必選修院核心課程至少 6 學分、選修課程至少 12 學分。論文 12 學分則需另計。

本學程逕博生於畢業前必須修滿課程至少 30 學分，其中必選修本學院核心課程至少 6 學分、選修課程至少 24 學分。論文 12 學分另計。其他相關修業規定與博士生相同。

專題討論為必修課程，應修滿四學期，不計學分。

本學院兩大核心課程主軸分為智能相關及永續相關課程，各主軸須至少修得 3 學分，博士生應於畢業前完成至少 6 學分。若於碩士班已修過本學院核心課程者，得免修。

博士生除修習本學院規定核心課程外，必須自下列本學程核心課程擇一修得三學分：

- 一、固態物理。
- 二、無機固態化學。

三、寬能隙半導體材料及元件。

前項本學程核心課程，若於碩士班已修過者，得免修。

碩士班修過之課程名稱，博士班重複選修者，該學分不予承認。

本學程博士生修得本學程專業選修課程與核心課程的學分數應達畢業學分數之二分之一。修習本學程專業選修課程以外之學分，須經指導教授同意及本學程主任核准，方得承認為畢業學分。

博士生各科目學期成績及學位考試成績均以一百分為滿分，七十分為及格；未達七十分者不給學分。必修科目不及格者，不得補考，應令重修。操行成績以六十分為及格。

博士生申請學分抵免，依本學院研究生抵免學分規定辦理。

Article 3 Doctoral students of the Program are required to complete a minimum of 18 course credits for graduation, including a minimum of 6 credits in Academy-designated required core courses and a minimum of 12 credits in elective courses. The minimum credit requirements for graduation exclude the 12 credits designed for the dissertation.

Direct-admission doctoral students are required to complete a minimum of 30 Academy-recognized course credits for graduation, including a minimum of 6 credits from required Academy-designated core courses and a minimum of 24 credits from elective courses. The minimum credit requirements for graduation exclude the 12 credits designed for the dissertation. Except for the minimum credit requirements, direct-admission doctoral students shall comply with relevant academic regulations designated by the Program for all doctoral students.

All doctoral students shall enroll in the Program-required 0-credit Specific-Topic Seminar Course every semester for four semesters during years of study.

The Program designates Artificial Intelligence and Sustainability as the two core competence curriculum categories. Doctoral students must complete a minimum of 6 credits of the core courses before graduation, with a minimum of 3 credits from each category. Those who completed the core course requirement of the Academy in their master's program can be exempted from this requirement.

In addition to the Academy-designated core courses, doctoral students must complete one of the following Program-designated 3-credit core courses:

1. Solid State Physics.
2. Inorganic Solid State Chemistry.
3. Wide Bandgap Semiconductor Materials and Devices.

Those who have completed one of the Program-designated core courses in the master's program can be exempted from this requirement.

Credits received by doctoral students for courses they took before of the same course titles in their master's programs cannot be recognized as their credits for graduation with the doctoral program.

The credits for elective courses and core courses designated by the Program curriculum, completed by doctoral students, should comprise 1/2 of the minimum credits for graduation. With the prior consent of the dissertation advisor and Program director, doctoral students are allowed to complete credits on elective courses offered by other programs at NCKU and count them as part of the minimum credit requirements for graduation.

Doctoral students are evaluated on a scale of 0 to 100 points for academic

performance on course grades and degree examinations, with 100 as the highest grade and 70 as the lowest passing grade. Those who fail to receive a grade of 70 or above for a course will not be given credits. Those who fail to receive a passing grade on a required course are not allowed a repeat exam and should retake the course. Doctoral students are evaluated on a scale of 0 to 100 points for ethical conduct, with 60 as the lowest passing grade.

Applications for credit transfer or waiver for the doctoral program shall be administered in accordance with the Academy-designated regulations on credit transfer/waiver for graduate programs.

第四條 博士生入學後第一學年結束前，須選定論文指導教授。論文指導教授應為本學程專任或本學程合聘本校專任教師。

指導教授如為本學院其他學程之專任教師或本學院其他學程合聘本校專任教師，應經本學程主任同意。

博士生經指導教授同意後，可選定企業專家共同指導論文。

Article 4 Doctoral students must select a dissertation advisor before the end of the first semester after matriculation. The advisor should be a full-time faculty member of the Program, or an NCKU full-time faculty member jointly appointed by the Program.

Assignment of an NCKU full-time faculty member or a jointly-appointed faculty member from other programs of the Academy as a dissertation advisor shall be approved by the Program director.

With the approval of the dissertation advisor, doctoral students are allowed to select an industrial expert as a co-advisor.

第五條 博士生於入學後六學期內，完成博士候選人資格考試為原則。

本學程博士學位候選人資格考試實施要點另訂之，經本學程課程委員會通過後實施，送院務會議備查。

Article 5 In principle, doctoral students should complete the doctoral qualifying examination within six semesters after matriculation.

The Program should establish its administrative directions for the doctoral qualifying examination in a separate text, which shall be approved by the Program curriculum committee and ratified by the Academy Affairs Council.

第六條 博士生應至少發表與研究相關之國際學術論文或發明專利共兩篇。

前項國際學術論文及發明專利之認定原則另訂之，經本學程會議通過後實施，送院務會議備查。

Article 6 Doctoral students need to fulfill a total of two as a minimum for the following achievements: international academic paper publications or invention patents during the duration of study.

The Program should establish its principles for accreditation of international academic papers and invention patents in a separate text, which shall be approved by the Program Affairs Council and ratified by the Academy Affairs Council.

第七條 博士學位考試博士生符合下列各款規定，得申請博士學位考試：

一、修滿本學程應修科目及學分數。

二、通過第五條博士候選人資格考核。

三、完成第六條論文發表。

四、完成論文初稿，並經指導教授同意。

本學程主任邀集本學程相關領域助理教授以上教師，召開會議審查前項各款事項，通過後送本校教務處複審，同意後辦理學位考試。

Article 7 Doctoral students who meet the requirements specified below are allowed to apply for a degree examination:

1. Completion of the Program-designated courses and credits.
2. Completion of the doctoral qualifying examination as defined in Article 5.
3. Completion of paper publication as defined in Article 6.
4. Completion of the draft dissertation approved by the advisor.

Upon receipt of an application, the Program director shall convene a meeting of faculty members in the position of assistant professor or above specializing in the relevant fields of the Program to review the requirements in the preceding paragraph. Upon approval at the meeting of the Program, the application shall be submitted to the Office of Academic Affairs for final review and approval for the administration of a degree examination.

第八條 考試委員資格規定博士學位考試委員會置委員五人至九人，校外委員應占委員總數三分之一以上，且指導教授不得擔任召集人。

考試委員除對博士學位候選人所提論文學科有專門研究外，並具有下列各款資格之一：

- 一、現任或曾任教授、副教授、助理教授。
- 二、中央研究院院士、現任或曾任中央研究院研究員、副研究員、助理研究員。
- 三、獲有博士學位，且在學術上著有成就或具備卓越產業研發績效之產業主管。

前項第三款產業主管之資格認定，由本學程主任依第七條第二項規定召開之會議審議之。

博士生之配偶、三親等內之血親或姻親，或曾有上述關係者，不得擔任指導教授、共同指導教授或學位考試委員。

Article 8 The doctoral degree examination committee shall consist of five to nine members, with more than one-third of them being non-NCKU faculty members. Meanwhile, the dissertation advisor shall not be the convener of the committee.

Committee members shall be appointed from those specializing in the disciplines related to the Ph.D. candidate's dissertation, who meet one of the following qualifications:

1. Those employed formerly or currently as a full, associate or assistant professor;
2. Those who are employed as an academician, or employed formerly or currently as a research fellow or associate research fellow at Academia Sinica;
3. Industrial executives who hold a Ph.D. degree with significant contributions in the academic field or with outstanding performance in industrial research and development.

The qualification of industrial executives, stated in Subparagraph 3 of the preceding paragraph, shall be reviewed at a meeting convened by the Program director in accordance with Paragraph 2 of Article 7.

Those who were/are related to a doctoral student as a spouse or a relative within three

degrees of kinship by blood or marriage are not allowed to serve as his/her advisor, co-advisor, or degree examination committee member.

第九條 本校其他系所、學位學程之研究生修業滿一學年以上，或境外研究生修業滿一學期以上，因特殊情形，經原系所、學位學程與本學程核可並經本校教務長核准者，得申請轉入本學程修讀博士學位，並以一次為限，一經核准即不得再申請轉回原學系所組或學程。

Article 9 Under special circumstances, approved by the original department/institute/degree program, this Program, and the Vice President for Academic Affairs of NCKU, NCKU-enrolled graduate students from other departments/institutes/degree programs who have completed one academic year of study, or overseas graduate students who have completed one semester of study, are allowed to apply for transfer to this Program for a doctoral degree. The transfer application is limited to one time. Once approved, students are not allowed to apply for transfer back to the original department/institute/program.

第十條 本辦法未盡事宜，依相關規定辦理。

Article 10 Matters that are not specified in these Regulations shall be administered in accordance with relevant regulations.

第十一條 本辦法經院務會議、管理委員會通過後施行，報監督委員會備查，修正時亦同。

Article 11 These Regulations shall be approved by the Academy Affairs Council and the Management Committee and ratified by the Supervisory Committee before taking effect. Amendments shall be processed accordingly.

These regulations were translated from the original Chinese. In the event of discrepancies between the two versions, the Chinese always takes precedence.