

國立成功大學智慧半導體及永續製造學院 半導體製程學位學程博士學位候選人資格考核實施要點

Directions for Doctoral Qualifying Examination

of the Program on Semiconductor Process Technology

Under the NCKU Academy of Innovative Semiconductor and Sustainable Manufacturing

111 年 8 月 23 日半導體製程學位學程通過

Approved by the Program on Semiconductor Process Technology on August 23, 2022

111 年 9 月 12 日 111 學年度第 2 次院務會議通過

Approved at the 2nd meeting of the Academy Affairs Council on September 12, 2022

111 年 10 月 11 日 111 年度第 6 次管理委員會通過

Approved at the 6th meeting of the Management Committee on October 11, 2022

111 年 12 月 14 日 111 年度第 6 次監督委員會備查

Ratified at the 6th meeting of the Supervisory Committee on December 14, 2022

一、國立成功大學智慧半導體及永續製造學院（以下簡稱本學院）半導體製程學位學程（以下簡稱本學程），為辦理博士學位候選人資格考核，依據國家重點領域產學合作及人才培育創新條例第 23 條及本學程博士班修業辦法，訂定本要點。

I. In accordance with Article 23 of National Key Fields Industry-University Cooperation and Skilled Personnel Training, and Academic Regulations for the Doctoral Program on Semiconductor Process Technology, these Directions are established by the Program on Semiconductor Process Technology (hereafter the Program) under the Academy of Innovative Semiconductor and Sustainable Manufacturing (hereafter the Academy) at National Cheng Kung University (NCKU) to regulate the administration of its doctoral qualifying examination.

二、本學程博士班研究生均應參加博士學位候選人資格考試，通過後始具有博士候選人身分。

II. Doctoral students of the Program should complete the qualifying examination before they are considered doctoral candidates.

三、博士班研究生應自以下五科中任選四科作為資格考科目，分數達七十分以上通過該科考試。入學六學期內（不包含休學期間）需通過四門科目考試，每門考試次數以四次為限，未通過之科目可更換考科或重新考試。未依規定年限及次數完成者，由本學程通知註冊組勒令退學。資格考試及格後，始得申請論文初審與博士論文口試。

資格考考試科目：

- (一) 半導體元件物理
- (二) 半導體製程技術

- (三) 固態物理
- (四) 光電元件
- (五) 電磁理論

III. Doctoral students of the Program should choose four of the five test subjects below for the qualifying examination:

1. Physics of Semiconductor Devices
2. Semiconductor Manufacturing Technology
3. Solid State Physics
4. Optoelectronic Devices
5. Electromagnetics Theory

A score of 70 or above for each test is considered a passing grade. Doctoral students must pass the tests of all four chosen subjects within six semesters after admission (excluding the period of study suspension). They are allowed to repeat a failed test up to four times. Those who fail a test may change the subject or retake the test. The Program will report those who fail to pass the tests of the chosen four subjects within the designated period to the Registrar's Division for the administration of dismissal from school. Doctoral students must complete the qualifying examination before they apply for the preliminary review and the oral defense of the doctoral dissertation.

四、於資格考試規定期限內，研究生發表符合下列條件之期刊或會議論文，並經本學程開會同意後，得抵免一科，該抵免論文不計入畢業所需之論文發表數：

(一) 發表於下列國際期刊或國際頂尖會議之論文：

1. 所屬領域前百分之 25(不含)等級之期刊論文。各期刊論文係以「Original Article」、「Research Article」、「Letter」、及「Review Article」為標準，不含「Letter to Editor」、「Comment」及「研討會論文(Proceedings Paper)」等。各期刊之等級(rank)認定方式以發表當年或前一年 Journal Citation Reports(JCR)資料庫之 rank 數值為原則。
2. 發表於下列國際會議發表之會議論文。
 - (1) IEEE International Electron Device Meeting (IEDM)
 - (2) IEEE International Solid-State Circuits Conference (ISSCC)
 - (3) IEEE Symposium on VLSI Technology

(二) 除指導教授、共同指導教授外，研究生應為論文第一作者，且指導教授應為本學程聘任之教師。

(三) 論文須已刊登或已接受刊登。

(四) 除碩士班逕讀博士班外，論文應為博士班入學後發表。

(五) 第一作者之所屬機構應為國立成功大學智慧半導體及永續製造學院半導體製程學位

學程。

IV. During the period of study by the designated deadline for the qualifying examination, Doctoral students who publish a journal or conference paper that meets the following requirements, approved by the Program committee, may apply for an exemption of one test subject. The paper used for subject exemption will not be counted as the papers required for graduation.

(I) Papers published in the following international journals or top international conferences:

1. Journal papers ranked in the top 25% (not included) of the field. The journal papers are those identified as "Original Article", "Research Article", "Letter" and "Review Article", not "Letter to Editor", "Comment" and "Proceedings Paper". The ranking of each journal is based on the rankings of the Journal Citation Reports (JCR) database in the publication year or the previous year.

2. Published conference papers in the following international conferences:

(1) IEEE International Electron Device Meeting (IEDM)

(2) IEEE International Solid-State Circuits Conference (ISSCC)

(3) IEEE Symposium on VLSI Technology

(II) In addition to the advisor and co-advisors, the applicant should be identified as the first author of the paper. The advisor of the paper should be a faculty member of the Program.

(III) Papers must be published or accepted for publication.

(IV) Papers submitted by doctoral students, except for those admitted directly from a master's program, should be those published after entering the doctoral program.

(V) The first author of the paper should be identified as a member affiliated with the Program on Semiconductor Process Technology (SPT) of the Academy of Innovative Semiconductor and Sustainable Manufacturing (AISSM), National Cheng Kung University (NCKU).

五、本學程博士候選人資格考試每學期舉辦一次，報名申請時間、報名文件、舉行時間、進行方式與及格標準，由本學程另行通知或公告。

V. The doctoral qualifying examination of the Program is held once every semester. The Program office will announce or publicize the application schedule, forms and documents, dates and times, methods, and grading standards.

六、本學程博士班研究生退學後重新入學，且重新入學學程與原學程相同者，如曾通過資格考試，且重新入學當年度仍為本學程博士班資格考試科目列表之科目，得於入學當學期申請抵免，但曾以論文抵免之資格考試科目，應經本學程同意後始得抵免。

VI. Doctoral students who have withdrawn from, and re-enrolled in, the Program, may apply for waivers for the test subjects they have completed before if the test subjects are listed for the qualifying examination in the re-enrollment year. However, the test subjects that have been

exempted based on published papers will not be waived without approval of the Program.

七、本學程博士班研究生休學期間不得參加該學期資格考試。完成資格考後，該學期辦理休學者，該學期之資格考試成績不列入計算，亦不列入考試次數。

VII. Doctoral students in the Program are not allowed to take the qualifying examination during the semester of a study suspension. In the case of those who complete an application for a study suspension after completion of the qualifying examination during a semester, the test results will be nullified, and the examination will not count as part of the designated maximum number of examinations.

八、經本校核准至境外大學修讀博士雙聯學位之博士班研究生，於該境外大學通過之博士資格考試得以全數抵免本學程之資格考試。

VIII. Doctoral students approved by NCKU to pursue a dual PhD degree at an overseas university can apply to waive the qualifying examination of the Program if they pass the doctoral qualifying examination at the overseas university.

九、本要點經院務會議與管理委員會通過後實施，報監督委員會備查，修正時亦同。

IX. The Directions 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.