

# 國立中山大學材料與光電科學學系

## 博士班研究生資格考核及學位考試相關規定

### Department of Materials and Optoelectronic Science, NSYSU Rules and Regulations for Doctoral Qualifying Examination and Degree Examination

(110 學年度起入學新生適用)

(For students enrolled in the 2021 academic year and after)

93 年 12 月 9 日 本系所務會議修正通過  
94 年 1 月 7 日 本系所 93 學年度第 3 次系務會議修正通過  
94 年 1 月 21 日 本系所 93 學年度第 4 次系務會議修正通過  
94 年 1 月 25 日 本院 93 學年度第 1 次院務會議通過  
94 年 2 月 22 日 本系所 93 學年度第 5 次系務會議修正通過  
94 年 3 月 23 日 本院 93 學年度第 2 次院務會議通過  
95 年 4 月 25 日 本系所 94 學年度第 9 次系務會議修正通過  
95 年 5 月 18 日 本院 94 學年度第 4 次院務會議通過  
95 年 8 月 30 日 本系所 95 學年度第 1 次系務會議修正通過  
95 年 11 月 3 日 本系所 95 學年度第 2 次系務會議修正通過  
96 年 1 月 18 日 本院 95 學年度第 3 次院務會議通過  
96 年 3 月 20 日 本系所 95 學年度第 5 次系務會議修正通過  
96 年 6 月 15 日 本院 95 學年度第 5 次院務會議通過  
97 年 2 月 27 日 本系所 96 學年度第 8 次系務會議修正通過  
97 年 6 月 10 日 本院 96 學年度第 3 次院務會議通過  
98 年 5 月 7 日 本系 97 學年度第 7 次系務會議修正通過  
98 年 6 月 10 日 本院 97 學年度第 4 次院務會議通過  
102 年 1 月 14 日 本系 101 學年度第 4 次系務會議修正通過  
102 年 3 月 5 日 本院 101 學年度第 2 次院務會議通過  
102 年 12 月 30 日 本系 102 學年度第 4 次系務會議修正通過  
103 年 3 月 6 日 本院 102 學年度第 3 次院務會議通過  
104 年 10 月 22 日 本系 104 學年度第 3 次系務會議修正通過  
105 年 2 月 25 日 本院 104 學年度第 3 次院務會議通過  
105 年 9 月 13 日 本系 105 學年度第 2 次系務會議修正通過  
105 年 11 月 30 日 本系 105 學年度第 4 次系務會議修正通過  
105 年 12 月 7 日 本院 105 學年度第 1 次院務會議通過  
109 年 04 月 09 日 系 108 學年度第 6 次系務會議通過  
109 年 5 月 25 日 本院 108 學年度第 3 次院務會議通過  
109 年 6 月 16 日 經校簽呈通過  
109 年 9 月 17 日 109 學年度第 1 次系務會議通過  
109 年 10 月 29 日 本系 109 學年度第 2 次系務會議通過  
Rules ratified at the second 2020 Academic Year Department Faculty meeting on October 29th, 2020  
110 年 2 月 19 日 本院 109 學年度第 1 次院務會議通過  
Rules ratified at the first 2020 Academic Year College Faculty meeting on February 19th, 2021  
110 年 3 月 15 日 經校簽呈通過  
Rules approved by the university on March 15th, 2021

一、本規定係依據教育部頒「學位授予法」、本校「學則」及「研究生學位考試施行細則」訂定之。

The "Rules and Regulations for Doctoral Qualifying Examination and Degree Examination" of Department of Materials and Optoelectronic Science, NSYSU (hereinafter referred to as the Rules and Regulations) are based on the Ministry of Education's "Degree Conferral Law" as well as National Sun Yat Sen University's "Student Rules" and "Graduate Degree Examination Rules and Regulations."

二、在學期間相關事項 Related rules for current students :

(一) 修業年限 Required years of study :

研究生修業年限二至七學年(不含保留入學及休學期間)。

The required length of study is between two and seven academic years (excluding deferred admission or approved leave periods).

(二) 學分制度及修課要求 Credit system and course requirements :

研究生畢業學分數為 21 學分，不含「書報討論」4 學分，其中「專題研究」課程至多 6 學分，得計入最低畢業學分數。學士班逕修讀博士學位者，至少須修滿 42 學分；碩士班逕修讀博士學位者，至少須修滿 33 學分。兩者最多可抵免研究所課程 12 學分。

Students must earn at least 21 credits for graduation, not including 4 credits for Seminars Up to 6 credits of Independent studies can be counted towards the 21 credits requirement. For those who enroll in the doctoral program with a bachelor's degree as their highest degree, 42 credits must be earned for graduation instead. For those who enroll in the doctoral program while in progress of their master's degree, 33 credits must be earned for graduation instead. From the two types of students, up to 12 credits can be waived by transferring course credits taken in their undergraduate or master study periods.

三、博士學位候選人資格考核 Doctoral Candidate Qualifying Examinations :

學期之定義：第一學期自每年八月一日至隔年一月三十一日、第二學期自每年二月一日至七月三十一日。

Semester period: Fall semester runs from August 1st until January 31st of the following year. Spring semester runs from February 1st until July 31st.

(一) 資格考試 Qualifying Examination :

1、本系博士生指定課程(以下簡稱指定課程)，依領域共計九科，詳列如下：

Nine courses and their respective subfields listed below are the designated courses for doctoral students (hereinafter referred to as designated courses):

課程領域 Course Subfields	指定課程名稱 Designated Course Titles
一般材料 General Materials	(1)、冶金熱力學 Metallurgical thermodynamics (2)、固態相變化 Phase transformation in solids (3)、電子顯微鏡學或 X 光繞射學 Electron microscopy OR X-ray diffraction

課程領域 Course Subfields	指定課程名稱 Designated Course Titles
高分子材料 Polymer Materials	(1)、軟質材料 Soft materials (2)、高分子物性或電子顯微鏡學於軟物質研究之應用 Physical properties of polymers OR Electron microscopy for soft materials (3)、高分子合成與反應 Synthesis and reactions of polymers
光電科學 Optoelectronic Science	(1)、凝態理論 Condensed matter theory (2)、電磁與量子物理 Electromagnetism and quantum physics (3)、波動光學 Wave optics

2、新生入學後，由指導教授於第一學期加退選前，選定五科應修課程。應修課程以基礎科目為主，需至少包括三科指定課程，且三科不得均屬同一領域。

After enrollment, new students must meet with their advisor(s) and select five required courses before the course drop/add date. These courses should be foundational courses and include at least three of the above designated courses from at least two separate subfields.

3、新生免除資格考筆試條件 Conditions for exemption from the qualifying examinations :

(1)於第一年內修畢且通過五科應修課程，(2)應修課程中有三科成績達 A-(含)以上，(3)應修課程中之指定課程有二科成績達 A-(含)以上。

(1) Pass all five required courses in the first academic year, (2) with three (or more) out of the five required courses receiving grades of A- or better, and (3) two designated courses within the five required courses receiving grades of A- or better.

4、五門應修課程除因課程未開設外，不得變更。

The five required courses cannot be changed unless they are not offered in the academic year.

5、五門應修課程如包含外系所課程，該課程修課人數需達 15 人以上，並經系務會議通過。

If one of the five required courses is offered outside of the department, the course must have at least 15 students and its selection must be approved at the department faculty meeting.

6、新生如於入學前已於本系選修應修課程所列部分課程，該科成績達 80 分以上，可列入前項「免除資格考筆試」條件。

If a newly admitted student have already passed some of the required course(s) with grades of A- or better, the course(s) can be listed and considered for exemption of the written qualifying examination.

7、新生如未滿足「免除資格考筆試條件」，需於入學滿兩學期後參加資格考筆試。資格考筆試科目由應修課程中選擇三科，筆試為綜合性考題，以 100 分為滿分，70 分(A-)為及格，不及格者可重考一次（博二第一學期結束前），不通過即令退學。

Those students who do not meet the exemption conditions must take a written qualifying examination after completing their first two semesters. The qualifying examination will be a comprehensive examination of three subjects chosen from amongst the required courses. The passing score is 70 out of 100 (B-). A student may retake the exam one time if they fail, and upon a second failure, a student cannot continue in this program.

8、博士生（具在職身分者）需於報到時，提交「在職證明」核備，修畢指定五門應修課程期限得延長為二年。

Doctoral students who are also employed may submit proof of employment upon registration to extend the time limit for completing required courses up to two years.

## (二) 論文計畫書審查 Doctoral Dissertation Proposal Evaluation :

研究生須先通過筆試之資格考試後，始得進行論文計畫書審查之口試審查。論文計畫書之審查須於入學後二學年內通過，博士生（具在職身分者）得三學年內通過，審查方式以口試行之，由指導教授提名並經主任同意之三位助理教授以上教師擔任口試委員，半數通過為及格。

After passing the qualifying examination, student(s) must submit a doctoral dissertation proposal for review. The proposal must pass review by the end of their second year of study, or the third year for those who are currently employed. The review is an oral defense, and the review committee must compose of three faculty members, recommended by the advisor(s) and approved by the department chairman. Eligible faculty members must serve at a position of assistant professor or higher. The dissertation proposal must gain approval from at least half of the committee members in order to pass review.

口試不及格者，可重考一次。再次不及格，即令退學。

Student(s) who fails the first attempt of dissertation proposal defense may reattempt the defense one time. Upon a second failure, a student cannot continue in this program.

博士班研究生通過資格考試及論文計畫書審查後，即成為博士學位候選。

Upon passing their qualifying examinations and dissertation proposal defense, the doctoral student will be considered as doctoral candidates.

(三) 博士論文發表及英文成績最低標準之相關規定 Research Article Publication and English Requirement Rules :

研究生申請學位考試前，應符合下列條件

Before applying for Doctoral Degree Examinations, students must meet the following requirements :

1、已發表或已被接受二篇(含)以上 SCI 期刊論文。上述論文並需符合以下要件

The doctoral candidate (co)authored two SCI articles that are published, or accepted for publication, at the time of application for doctoral degree examination. The two SCI articles must also fulfill the following additional requirements :

I. 兩篇論文研究生須為除指導教授外之唯一第一作者。

The student must be listed as the first author with the exception of the student's advisor.

II. 至少一篇論文以指導教授或研究生為唯一通訊作者。

In at least one of the SCI articles, either the student or their advisor(s) must be the only corresponding author.

2、符合「國立中山大學學士班學生英語文能力標準」之第一項標準或修畢「國立中山大學學士班學生英文能力培育辦法」中第四條「語文課程：英語文」領域課程之英文中高級及高級課程各 2 學分。

The doctoral candidate must fulfill the “National Sun Yat Sen University English Qualification Standards” first criterion, or he/she must take at least two credits of the “National Sun Yat Sen University English Advancement” approved intermediate or advanced English courses.

3、須於申請學位口試日前，已在研究所書報討論課程給與博士論文相關之專題演講。

The doctoral candidate must have presented their research in the Department Seminar prior to applying for oral defense portion of their doctoral degree examination.

#### (四) 博士班學位考試 Doctoral Degree Examination :

- 1、研究生於通過博士候選人資格考試及論文計畫書審查後，且其博士論文經指導教授認可後，得申請學位考試。

A doctoral candidate is eligible to apply for Doctoral Degree Examination if he/she have an approved doctoral dissertation proposal and his/her dissertation has been approved by corresponding advisors(s)

- 2、博士學位考試委員人選由指導教授依『國立中山大學研究生學位考試施行細則』之規定提名，經主任同意後呈請校長核定聘任之。

The committee for the Doctoral Degree Examination will be recommended by the advisor in accordance with the “National Sun Yat Sen University Rules on Graduate Degree Examinations.” The selection of committee members must be approved by the department chairman. Then the selection of committee members must also be approved by the university president for formal appointment.

- 3、需於論文口試一星期前，完成論文原創性比對，論文在扣除引用部份與參考文獻後，「相似度」需等於或低於12%。如「相似度」高於12%需將比對結果提交指導教授與口試委員審閱。口試委員需於研究生學位考試「論文考試」成績單，確認為論文原創性比對結果通過，才能舉行論文考試。

One week prior to the oral defense, a doctoral candidate must validate his/her authorship of the dissertation. The verifying process entails that his/her dissertation, excluding citations and references, has less than 12% similarity with other works. If the dissertation exceeds this limit, a corresponding authorship verification report must be sent to the Doctoral Degree Examination committee. The committee must verify the candidate's authorship before the doctoral candidate may attempt his/her oral defense portion of the Doctoral Degree Examination.

#### 四、畢業 Graduation :

- (一) 符合上述修業規定。

Graduating individuals must complete all of the above requirements and adhere to the rules.

- (二) 本國生一般生畢業前需赴國外進行交流需三個月以上，在職生在學期間需參加國際研討會並發表論文一次。

Native students must have spent at least three months abroad to take courses or carry out research in a university or research institute. Native students with an active employment must have attended and presented at an international conference at least

once.

(三) 通過博士班學位考試，得提出畢業之申請，研究生辦理畢業離校時，需繳交「畢業論文之原創性報告」及「研究生學位論文符合學術倫理規範聲明書」，並由指導教授親簽後，繳交至系辦公室存查，方得畢業離校。

Doctoral candidate(s) who have completed the Doctoral Degree Examination must apply for graduation. He/She must submit his/her "Dissertation Authorship Verification Report" and "Academic Ethics Dissertation Compliance Verification Certificate." Once these are signed by his/her advisor, the documents must be submitted to the department office. After checking and documentation, the doctoral candidate(s) will be approved for graduation

五、本規定經系務會議、院務會議通過，簽請校長核定後施行，修正時亦同。

These rules will go into effect after having been ratified by the department, ratified by the college, and signed by the university president; including all amendments.