

Graduate Program for Imaging and Biomedical Photonics,  
National Chiao Tung University  
Regulations on Academic Studies for Ph.D. Program Students

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### **Admission Requirements**

Article 1 Applicants who hold a Science and Engineering-related Master degree or equivalent from public universities, registered private universities, independent academies, or foreign academic institutions recognized by the Ministry of Education of the Republic of China are eligible to take the Ph. D. Student Entrance Exam to enroll in the Ph.D. programs of the College of Photonics (referred to the College).

### **Direct-Entry Ph.D. Students**

Article 2 The applicant with excellent academic results, who is graduated from science and engineering related departments or studying in Master Program of NCTU, can apply for doctoral degree directly.

### **Degree conferment**

Article 3 Within the prescribed period of study, the doctoral student who completes required subjects and credits, as well passes the Qualifying Examination, Dissertation Proposal Examination and Doctoral Degree Examination is allowed to graduate, and conferred the Ph.D. degree.

### **Period of Study**

Article 4 The Program admits general and on-job students; the relevant provisions for the period of study are as follows:

1. The period of study for general students is limited to two to seven years, for on-job students is two to eight years, while the period of study does not include the leave of absence from study.
2. The period of study for direct-entry students is counted from pursuing a doctoral degree.

3. Before the start of semester examinations, students for some reason may apply for a leave of absence from study for one semester, one academic year or two academic years. Leave of absence from study can be accumulated up to two academic years. When the time is due and the student cannot return to school because he/she needs time to conduct medical rehabilitation, he/she can apply for extension and subject to be approved by the consideration of Academic Affairs Committee.

### **Registration and Taking Courses**

Article 5 Doctoral students should follow the regulations of school to register and take courses; the relevant provisions are as follows:

1. To select courses at the registration, doctoral students must obtain the advisor's consent. If students have not yet selected the advisor, then the courses selected must be approved by the Institute Director, same as adding or dropping courses.
2. To take courses from other college or university, the students must obtain the approval of Institute Director. If the course that doctoral students took from other university was offered by the College at the time, then the course shall not be counted into graduation credits.
3. The Requirements of Graduation Credits are as follows:
  - (1) The general and on-job students must complete 12 credits of the Science and Engineering courses before graduation (including at least 9 credits of the Program professional courses).
  - (2) Direct-entry students should complete 30 credits before graduation (including credits taken in Master Program, and at least 24 credits of the Program professional courses).
  - (3) Independent Study, Seminar and Colloquium are not counted into graduation credits.
4. Colloquium is the each-semester required course for first-year doctoral students.
5. Seminar is the each-semester required elective course for first-year doctoral students.
6. Independent Study is the each-semester required elective course for second-year or higher doctoral students.
7. The graduate and doctoral students of the College, in principle, must complete the minimum requirement credits within three years after admission, except for the required subjects and the retaken failed subjects, the repeated elective subjects are not counted into graduation credits.
8. Applicable subjects of graduation credits are recognized by the Teaching and Curriculum Committees of the College, the credits of extra required

undergraduate subjects of the related department are not counted into graduation credits.

9. Students cannot take two subjects at the same period, if students violate this regulation, then the scores of two subjects are both counted zero.
10. The evaluation of doctoral courses is adopted for 100-Point scoring method, the passing grade is 70, if failed to reach 70, and then the credits are not counted.

### **Credit transfer**

Article 6 If the doctoral student took prerequisite courses before admission, when he/she is admitted to the Program, he/she can attach supporting documents to apply for credit transfer, the relevant provisions are as the following:

1. The student who took prerequisite courses of the Program before admission, if the subjects and credits meets the Institute passing grade standard and were not previously applied for credit transfer as well not counted into graduation credits of undergraduate and master degree, can apply for credit transfer, but the total credits transferred shall not be more than six credits, and the courses must be taken within 5 years before admission.
2. Students can apply for credit transfer within the first week of each semester; upon application the transcript and required supporting documents must be attached. The Credit transfer is approved by the College Teaching and Curriculum committee.

### **Advisor**

Article 7 The doctoral student should select the advisor to engage in dissertation research, the relevant provisions of selecting the advisor are as follows:

1. The doctoral student should select a full-time assistant professor (or higher) of the College as advisor within 2 weeks after results release, and submit to Institute Director for approval. If the student fails to select within the prescribed period, then Teaching and Curriculum Committee would handle it.
2. The responsibilities of the advisor are as follows:
  - (1) Instruct and assist graduate students to complete their dissertations;
  - (2) Instruct and assist graduate students to schedule elective courses;
  - (3) If graduate students want to send out any document or participate in dissertation research related activities, they must seek the consent of the advisor.
3. The doctoral student can select a scholar or specialist outside the College as the co-advisor, application must be proposed within the first three weeks after admission, the proposal and the reasons must be described in detail, and ask the Institute Director for approval, but still the student must have full-time

teacher of the College as advisor.

4. The doctoral student selects a scholar or specialist outside the College as the co-advisor, except for the scholar or specialist as a full-time University assistant professor (or higher), his/her information must be sent to Teacher Review Committee of the Institute for qualification review.
5. The doctoral student who changes the advisor during the period of study must file an application, fill out “Application Form for Replacing (Changing) Advisor”, and ask the original advisor, new advisor and the Institute Director for approval. If the original advisor is disagree and they cannot reach a consensus after the coordination, then the student can appeal to College Teaching and Curriculum Committee, resolved by the Teaching and Curriculum Committee. The student can only apply for graduation oral defense one year after changing advisor; prior to the defense, the student need send the dissertation to original advisor to review and confirm, and sign “Thesis Confirmation Form for Graduate Student Replacing Advisor”.
6. If the doctoral student replaces his/her advisor after passing the dissertation proposal examination, then he/she must pass the dissertation proposal examination again within one year after replacing the advisor, if he/she failed the Examination, then the examination must be retaken within three months. When retake the examination, in addition to employ the original oral defense committee members to attend, there are two new oral defense committee members designated by the Institute director will also attend. The examination can only be retaken once.

### **Qualifying Examination**

Article 8 The Doctoral student must pass Qualifying Examination within 2 years after admission to become a Ph.D. candidate. The related requirements are as follows:

1. Qualifying Examination is held before the end of each semester, the student can apply for the examination after obtaining the advisor's consent.
2. The student should select two subjects of Qualifying Examination, and retake the failed subject examination; each subject examination can only be taken two times.
3. The student whose results of the same course of Qualifying Examination is the top 30% of the class can apply for Qualifying Examination exemption, and approved by College Teaching and Curriculum Committee.
4. Qualifying Examination subjects would additionally formulate and list, and to be implemented after College Affairs Meeting approval. The same procedure will be repeated for each revision.
5. Students who pass one subject of Qualifying Examination within two years can

take conditionally pass: Students who pass one subject of Qualifying Examination within two years can take conditionally pass: Dissertations needs to add one first-author article at the academic journal of top 40% SCI journals.

### **Dissertation Proposal Examination**

Article 9 The doctoral student must pass the dissertation proposal examination within 1 year (excluding leave) after passing Qualifying Examination to become a Ph.D. candidate. The related requirements are as follows:

1. The doctoral student should propose the written dissertation proposal as soon as possible after passing Qualifying Examination. The advisor should recommend at least two scholars inside (outside) the University as Dissertation Proposal Committee members to the Institute Director; the scholar qualification is identical to the qualification of Degree Examination Committee member.
2. The examination is to review dissertation proposal and to be conducted orally, the time, place and title of dissertation should be announced in advance. The attending members evaluate with secret ballot, and to pass the examination must be agreed by more than half of attending members, and only vote once.
3. The student who failed the dissertation proposal examination must retake within three months. When retake the examination, in addition to employ the original oral defense committee members to attend, there are two new oral defense committee members designated by the Institute director will also attend. The examination can only be retaken once.

### **Dissertation Published**

Article 10 The Ph.D. candidate must publish at least two first-author (except Advisor and Co-advisor) papers (including papers accepted yet not published) at the academic journal of top 40% SCI journals in his/her field (selecting the most favorable during the period of study).

1. The contents of papers published should be relevant to the dissertation, the co-authors must be the advisor and co-advisor, and the author should be indicated to belong to Institute of Imaging and Biomedical Photonics, College of Photonics, and National Chiao Tung University.
2. The previous two papers, one of which can be waived with the following two articles (pieces), but the said other conditions still are applicable and must be met:
  - (1) The second-author journal paper at the top 40% SCI journals in his/her field
  - (2) The first-author invention patent in Europe, USA, Japan and other countries
  - (3) The first-author journal paper at the journal not in the top 40% SCI

journals in his/her field

3. If the dropout who was in the Ph.D. program of the Institute is re-admitted to the Institute and changes the Advisor, then the original paper published is not counted into the numbers of graduation papers.

### **Degree Examination**

Article 11 The Ph.D. candidate whose course credits and the number of papers published meet the graduation requirements, passed the Qualifying Examination and Dissertation Proposal Examination, he/she can apply for doctoral degree Examination after the approval of the advisor. The relevant provisions are as follows:

1. Doctoral candidates who apply for Degree Examination should submit the following information to Teaching and Curriculum Committee for review and for public display at the Institute ten days:
  - (1) A list of doctoral candidate's education and experience information
  - (2) A copy of Dissertation Research Instructions
  - (3) A copy of Qualifying Examination Certificate
  - (4) A copy of academic transcript
  - (5) A copy of Doctoral Degree Examination Committee Members Recommendation List
  - (6) One copy of publication list, one copy of each journal that paper published during the period of study, if the papers have not been published, then contributions can also be used, but the official written letters of acceptance (if it is an e-mail, then the advisor signature is needed) by the Journal Editor must be attached.
  - (7) A copy of dissertation draft

The above information is reviewed by College Teaching and Curriculum Committee, and after approved by the Institute Director, reported to College Affairs Meeting to identify.

2. Degree Examination must be conducted orally and openly. The time, place and title of dissertation must be announced 7 days before the oral defense.
3. Degree Examination Committee consists of five to nine members, members from inside and outside of the University are each required to account for one third (or more). The President must appoint a committee chairperson from among the committee members. The adviser of candidate cannot be the chairperson.
4. Degree Examination Committee members shall have one of the following qualifications:
  - (1) Used to be a professor who taught the subject that related to the dissertation of the doctoral candidate;
  - (2) Academia Sinica academician or served as a research fellow of Academia

Sinica, who is specialized in research the discipline of the dissertation proposed by the doctoral candidate;

- (3) Used to be an assistant professor, associate professor or serves as an assistant research fellow, associate research fellow of Academia Sinica, who has outstanding academic or professional achievements;
- (4) The one who is specialized in research the discipline of the dissertation proposed by the doctoral candidate owns a doctoral degree with outstanding academic or professional achievements;
- (5) A member must have outstanding academic or professional achievements in rare or specific fields.

The qualifications of (3) to (5) are reviewed and recognized by the Institute Teacher Review Committee.

The Ph.D. candidate's spouse or third-degree relatives, relatives by marriage may not serve as Doctoral Degree Examination Committee member.

5. All the Examination Committee members must attend the Degree Examination in person. No replacement allowed. The Degree Examination can be held if there are two thirds (or more) and at least 5 committee members attend the Degree Examination; and more than one third of attending committee members is from outside NCTU.
6. The dissertation must be written in English and comply with the “NCTU Thesis and Dissertation Formats”. Dissertation should include Abstract (in Chinese and English), Introduction, Research Methods, Results, Conclusions, References, etc. The dissertation draft should be submitted to Degree Examination Committee for review 7 days before the exam date. The dissertation earned the other degree shall not be presented again.
7. The Ph.D. candidate should base on dissertation contents to make public oral statement to Degree Examination Committee; Examination Committee members would query and question the dissertation and the related contents of report, to detect the candidate’s research level and related expertise. The sit-ins shall not ask questions or express any opinion.
8. The passing grade and full marks for the degree examination are 70 and 100, respectively. Evaluation must only be conducted once and according to the average of scores given secretly by the attending members. The doctoral candidate is deemed failed, when the scores given by one third or more attending members are below the passing grade. The student who failed Degree Examination can retake the examination within the period of study.
9. The Degree Examination will be flunk, if the Examination Committee finds out and confirms there is plagiarism or any cheating in dissertation. In this case, if the degree has been conferred, then the degree will be revoked and the degree

certificate will be recovered.

10. Oral Defense Committee members would indicate the dissertation modified direction and points to the student who passes dissertation oral defense as the dissertation modification basis. Students should submit the revised dissertation to review. In order to pass the dissertation, it needs at least two thirds of Examination Committee members to agree.

The dissertation review would not be scored additionally. The attending Examination Committee members should sign “Dissertation Oral Defense Committee Approval Form” to the student who passes dissertation review. The dissertation result of the student who completes dissertation review is the Degree Examination result.

11. The student who passes the dissertation examination before January 31 or July 31, but fails to complete dissertation review or submit “Dissertation Oral Defense Committee Approval Form” within two weeks of the next semester should be registered in the next semester. If the student has not submitted the Approval Form during the period of study, the degree examination result is considered to be failed, and must be expelled under provisions.

### **Expulsion**

Article 12 Doctoral students who have one of the following circumstances should be expelled:

1. The deadline of registration for each semester is two weeks after the start of school. The student fails to complete the registration formalities.
2. The doctoral students fail to pass the Qualifying Examination within 2 years (excluding leave) after admission.
3. The doctoral students fail to pass the Dissertation Proposal Examination within 1 year (excluding leave) after passing the Qualifying Examination.
4. At the expiration of Period of Study, the required subjects and credits still are not completed, or the Degree Examination is failed.

### **Change Degree**

Article 13 Direct-entry students who failed to pass the Qualifying Examination, Dissertation Proposal Examination or Doctoral Degree Examination may in accordance with the following provisions apply for transferring to Master Program or change to confer Master Degree, and to be approved by the College Teaching and Curriculum committee.

1. Direct-entry students who failed to pass the Qualifying Examination or Dissertation Proposal Examination may apply for transferring to Master Program.
2. Direct-entry students who failed to pass the Doctoral Degree Examination and the re-examination, but meet standards of master degree can apply for



master degree conferment under the recommendation of Doctoral Degree Examination Committee.

### **Re-Admission**

Article 14 The doctoral students who dropped out for any reason less than two years or are expelled due to the expiry of the period of study are re-admitted, the relevant provisions of the courses, qualifying examination, dissertation proposal examination are as follows:

1. The credits taken during the original doctoral study period can apply for credit transfer; the credits can be transferred at most 12 credits. The students with excellent results can shorten the period of study.
2. The Qualifying Examination passes during the original doctoral study period can apply for retention, but the term of validity of the qualifying examination is 10 years.
3. The Dissertation Proposal Examination passed during the original period of study may be applied for retention.
4. The papers published within 3 years of original period of study may be combined after the re-admission.

### **Appeal**

Article 15 If the doctoral student thinks himself/ herself to be unfairly treated during the period of study, he/she can propose appeal in writing to the Institute. The Institute shall complete to investigate the contents of appeal and resolve reasonably within thirty days.

Article 16 The doctoral student can choose to be regulated by the Regulations on Academic Studies when admitted or the current Regulations on Academic Studies when graduated.

Article 17 Matters not provided herein must be subject to related laws and regulations of the Ministry of Education and the University. If there is any doubt, please submit it to College Affairs Meeting for resolution.

Article 18 These regulations are approved by College Affairs Council, sequentially reviewed by University Curriculum Committees, and implemented after verifying by Academic Affairs Meeting. The same procedure will be repeated for each revision.

※The Chinese version of the document shall prevail in case of any discrepancy or inconsistency between Chinese version and its English translation.※