

**Study Regulations for Doctoral Students  
in the Institute of Materials Science and Engineering  
and  
the Doctoral Program in Engineering  
at  
National Central University**

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Article 1

The "Study Regulations for Doctoral Students in the Institute of Materials Science and Engineering and the Doctoral Program in Engineering at National Central University" (hereafter referred to as "these Regulations") are established per Section Three of the "National Central University Study Regulations" and the "National Central University Regulations on Degree Examinations for Postgraduate Students" (hereinafter referred to as the "Degree Examination Regulations").

Article 2

Students shall select a thesis advisor, complete the required course credits per these Regulations, pass the qualification exam to become a Ph.D. candidate, and, upon passing the degree examination, complete the graduation clearance process within the period specified in the academic calendar to receive the graduation certificate.

Article 3: Thesis Advisor

3-1. Students shall select a thesis advisor within one year of enrollment, complete the thesis advisor registration, and submit the thesis advisor confirmation form. If any student fails to select a thesis advisor within the specified period, the Institute Affairs Committee of the Institute of Materials Science and Engineering (hereafter referred to as "the Institute") shall appoint a thesis advisor to the student.

- 3-2. The thesis advisor must be a faculty member of the Institute (including project faculty, excluding part-time faculty).
- 3-3. Changes of the thesis advisor shall follow the Institute's guidelines for changes of thesis advisors. Changing thesis advisors or adding a co-advisor requires re-passing the qualification exam, and graduation cannot be applied for within two years (excluding periods of suspension of studies) from the date of the change.

#### Article 4: Course Requirements

- 4-1. The thesis advisor is responsible for advising on course selection. The course selection form must be signed by the advisor. From the second academic year, the head of the Institute shall not sign the form on behalf of the thesis advisor.
- 4-2. For students who have not selected a thesis advisor, the head of the Institute shall recommend a temporary advisor to assist them with course selection.
- 4-3. Students who have not taken core courses of the Institute must pass at least two of the following eight courses: (1) Materials Thermodynamics; (2) Kinetic Process of Materials; (3) Advanced Physical Metallurgy; (4) X-ray Diffraction and Crystal Structure; (5) Materials Physics of Solid; (6) Physical Chemistry of Materials; (7) Electrochemistry of Materials; (8) Mechanical Behavior of Materials (applicable to all students from the 106<sup>th</sup> academic year).
- 4-4. Students must pass four semesters of Monographic Study courses before graduation.
- 4-5. Direct-entry doctoral students from the master's program require a minimum of 36 course credits for graduation (including course credits earned during the master's program; excluding credits of Seminar and Monographic Study courses).
- 4-6. Students must complete at least 18 course credits (excluding credits of Seminar and Monographic Study courses), fulfill the requirements in the provisions of Article 4, Paragraph 3, and pass four semesters of Seminar courses before graduation. Seminar courses may be waived with English Seminar courses offered by the College of Engineering (applicable to all students from the 105<sup>th</sup> academic year).
- 4-7. The number of credits from the courses selected via the intercollegiate course selection mechanism (including the course credits given by institutes outside National Central University and used for credit waivers and credit transfer) cannot exceed one-third of the minimum number of course credits for graduation required by the Institute.

#### Article 5: Qualification Examination

- 5-1. The qualification exam is limited to two attempts. Students who fail to pass the

- qualification exam twice shall be dismissed from National Central University.
- 5-2. Students must meet the course requirements listed in Article 4 before applying for the qualification exam, and they must pass the qualification exam within six semesters of enrollment. If a student's thesis advisor is changed after the second year, and the student has not taken the qualification exam, the time limit can be extended to four years.
- 5-3. The qualification exam is primarily conducted orally, with specific procedures stipulated separately.

#### Article 6: Degree Examination

- 6-1. Students shall meet all the requirements listed above and obtain Ph.D. candidacy, and their theses shall meet the thesis publication criteria listed in Article 6, Paragraph 2. Then, with the thesis advisor's approval, the students may apply for the doctoral degree examination.
- 6-2. Theses published by a Ph.D. candidate shall meet the following criteria:
- 6-2-1. Thesis Publication:
- 6-2-1-1. The theses must list the Institute's thesis advisor's name and the Institute's name as the student's affiliation.
  - 6-2-1-2. The theses used by the student to apply for the oral defense must be directly related to the student's doctoral dissertation.
  - 6-2-1-3. At least one SCIE paper must list the oral-defense applicant as the first author.
- 6-2-2. Thesis Points: To apply for the dissertation oral defense, the following requirements must be met:
- 6-2-2-1. The student published at least one SCIE-indexed journal paper and accumulated a total thesis points of  $\geq 1.5$  (Impact factor points are based on data announced by the SCIE during the student's enrollment, and the student must provide supporting data).
  - 6-2-2-2. For published journal papers, the doctoral student's contribution is fully counted as the first author, 50% as the second author, 25% as the third author, and so on.
  - 6-2-2-3. Co-authored papers where the student is not the first author can contribute up to 1/3 of the required points.
- 6-3. The Ph.D. candidate must submit the degree examination application form (signed by the thesis advisor and listing the members of the oral defense committee), the thesis advisor's recommendation letter, the list of journal papers, the draft of the dissertation, accepted journal papers, proof of passing the qualification exam, and

the academic transcript to the office of the Institute one month before the oral defense, and display them in the Institute's reading room.

6.4. The degree examination shall include subject exams and the oral defense, and the method for conducting the degree examination shall be in accordance with the "Degree Examination Regulations."

6.5. The doctoral degree examination committee shall consist of five to nine members qualified under Article 4 of the "Degree Examination Regulations" and recommended by the Institute to the president of National Central University for selection and appointment. At least two members shall be external. External members are those who are not National Central University's full-time (or project) faculty (including researchers). One internal professor shall be recommended by the Institute Affairs Committee.

#### Article 7

A copy of the dissertation, a copy of related software programs, and a computer file of user manuals shall be submitted to the Institute for archiving. The student or the thesis advisor may request confidentiality for or limited access to archived software programs.

#### Article 8: Other Matters

8-1. Students of the Institute cannot hold dual enrollment.

8-2. The study period for the doctoral program is limited to two to seven years. Students admitted as in-service degree candidates may extend the study period by one year if they do not complete the required courses or the dissertation within the specified study period.

#### Article 9

Matters not covered by these Regulations shall be handled per the relevant regulations of the Ministry of Education and National Central University.

#### Article 10

These Regulations are implemented after being passed at the Institute Affairs Meeting and reviewed at the Academic Affairs Meeting. Amendments to these Regulations shall follow the same procedure.