

**Regulations for the Doctor of Philosophy (Ph.D.)**  
**Department of Chemistry**  
**National Central University**

Amended and passed at the Department Affairs Meeting on 17 January, 2018

Amended and passed at the Academic Affairs Meeting on 21 March, 2018

1. *These regulations are established in accordance with the University Act and the Enforcement Rules of the University Act, the National Central University (NCU) Graduate School Recruitment Regulations, and all of the related regulations.*
2. *Admission and Entrance Examination*
  - 2.1 Examinees must have one of the following qualifications: (i) a bachelor degree and a master degree in Chemistry or related fields conferred upon by a Ministry of Education (MOE)-registered university or an independent institute, or any MOE-accredited foreign university. (ii) current enrollment in the master degree program of this department with the application for change to the Ph.D. programs. (iii) a bachelor degree in Chemistry or related fields and at least six years of work experience in chemistry-related research with publication(s), that must be reviewed and approved by the Department Affairs Meeting, equivalent to a master's thesis. Qualified examinees will be admitted to the Ph.D. program after passing the entrance examination.
  - 2.2 The entrance examination of the Ph.D. program includes two sections: an academic review and an oral interview. The academic review evaluates the academic performance (undergraduate and master program), the statement of purpose (including educational background, experience, research achievements, and future development plan), master's thesis, academic publications, and two letters of recommendation. Only examinees who pass the academic review can attend the oral interview. The entrance examination score will be calculated as follows: academic review (50%) and oral interview (50%). The oral interview will mainly focus on the research work conducted by the examinee during their master's study.
3. *Curriculum and Credit Points*
  - 3.1 Study time for a Ph.D. degree is three to seven years.
  - 3.2 Doctoral students must complete at least 18 credit points in courses, **including at least 9 credit points for the general students, 3 credit points for the international students in the majors field offered by this department.** The adequacy of credit points is determined by the advisor and the department chairperson.
  - 3.3 Credit points from other universities should not exceed one-half of the minimum credit points required by the department. The adequacy of the required credit points is determined by their advisor and the department chairperson.
  - 3.4 Among the Advanced Analytical Chemistry, Advanced Organic Chemistry, Advanced Physical Chemistry, and Advanced Inorganic Chemistry courses offered by the department, doctoral students must take **at least one of these courses as a compulsory course.** Compulsory courses are determined according to their advisors.
  - 3.5 Credit points obtained by taking the courses mentioned in the previous sections do not include courses such as the Seminar, Thesis Research, and Oral Doctoral Degree Examination.

- 3.6 Doctoral student must take and pass Seminar courses related to their majors or on related topics for at least four semesters. Doctoral student must take and pass Topic Seminar courses for at least six semesters.
- 3.7 Doctoral student must take the Thesis Research courses every semester, and must pass for at least six semesters. Students who want to graduate in the middle of semester shouldn't take any courses in that particular semester.
- 3.8 The chairperson of this department also chairs the Review Committee for Ph.D. Study. Committee members are recommended by the department chairperson and should be confirmed by the Department Affairs Meeting.

#### *4. Ph.D. Candidacy Qualification Examination*

- 4.1 Doctoral student must choose a dissertation advisor by the end of the first semester after his/her enrollment. Changing of the advisor must be agreed by the department chairperson, the present advisor, and the new advisor.
- 4.2 Doctoral student must pass the Ph.D. Candidacy Qualification Examination within three years after his/her enrollment. Failure to pass the Ph.D. Candidacy Qualification Examination by the deadline will result in dismissal from the Ph.D. program.
- 4.3 A doctoral student who has passed the Ph.D. Candidacy Qualification Examination and obtained official documentation may organize the Dissertation Advisory Committee. The Dissertation Advisory Committee must consist of three to four NCU faculty members including the advisor with ranks of at least assistant professor. The committee members are nominated by the advisor and should be approved by the department chairperson. A doctoral student who fulfills these requirements, i.e. a Ph.D. candidate, must take the pre-oral examination at least 12 months prior to the Oral Doctoral Degree Examination. The Ph.D. Candidate should submit all relevant documents to apply for the pre-oral examination at least 4 weeks prior to the date of the Ph.D. Candidacy Qualification Examination. After approval by the Review Committee for Ph.D. Study, the student may set a date for the pre-oral examination. Ph.D. candidates who do not pass the pre-oral examination must apply for a second pre-oral examination within six months after the first pre-oral examination. Any Ph.D. candidate who fails the pre-oral examination twice will be dismissed from the Ph.D. program.
- 4.4 All issues of the Ph.D. Candidacy Qualification Examination are determined by this department.

#### *5. Oral Doctoral Degree Examination*

- 5.1 A doctoral student who has completed the required credit points and passed the Ph.D. Candidacy Qualification Examination as well as the pre-oral examination may apply for the Oral Doctoral Degree Examination to the Dean of Academic Affairs with the recommendation from his/her advisor after completing at least six semesters of research work under the guidance of an advisor.
- 5.2 The dissertation must contain at least two publications by SCI-accredited journals and the sum of journal citation index (impact factor in the publication year) must be greater than 3.0. The advisor must make an official statement that the Ph.D. candidate is the major contributor of the publications in the dissertation.
- 5.3 Ph.D. student must submit his/her dissertations that should fully comply with the NCU dissertation format requirements to the Dissertation Examination Committee at least four weeks prior to the date of the Oral Doctoral Degree Examination.

- 5.4 Members of the Oral Doctoral Degree Examination Committee are recommended by the advisor of the Ph.D. candidate proved by the department chairperson and are appointed by the President of NCU.
  - 5.5 The Oral Doctoral Degree Examination Committee must consist of five to seven scholars from related fields including the advisor as the designated member. The number of committee members who are not affiliated with this department should not be less than one-fifth of the total number of members.
  - 5.6 Oral Doctoral Degree Examination scores are anonymously given by the Oral Doctoral Degree Examination Committee. An average score of at least 70 is needed to pass the examination. If one-third or more of the Oral Doctoral Degree Examination Committee members give scores below 70, the Ph.D. candidate will not be able to pass the examination.
  - 5.7 If any Ph.D. Candidate fails the first Oral Doctoral Degree Examination and has not yet reached the Ph.D. study time limit, the Ph.D. candidate may apply for a second Oral Doctoral Degree Examination within one year. The Ph.D. candidate will be dismissed from the Ph.D. program if he/she also fails the second examination.
  - 5.8 If any plagiarism, misconduct, or cheating is found in the dissertation and is confirmed by the Review Committee for Ph.D. Study, the dissertation is regarded as a failed dissertation and the student will be expelled from the university.
6. *All doctoral students must be a teaching assistant in laboratory courses for at least one year during their Ph.D. study.*
  7. *A doctoral student who has passed the Ph.D. Candidacy Qualification Examination, should give a public speech before the Oral Doctoral Degree Examination, in an event such as seminar/workshop, annual conference, topic seminar in our department , etc.*
  8. *Any matters that are not provided for herein are subject to the relevant laws, rules, and regulations promulgated by the Ministry of Education and those of the National Central University.*
  9. *These regulations and their amendments are implemented after being passed at the department affairs meeting and reported to the Dean of Academic Affairs.*