

National Chiao Tung University
Department of Applied Mathematics
Regulations for Doctoral Program Graduate Students

Revised in March and December 2011

Revised on May 7, 2012

Revised on November 12, 2014

Revised in June and October 2017, April 2018, and March 2019 (applicable to old students)

1. The doctoral program in the department is divided into the "Analysis and Geometry Group," the "Combinatorial Mathematics Group," and the "Mathematical Modeling and Scientific Computing Group" for admissions. Transfers between groups are not allowed after admission.
2. Doctoral students must propose their thesis advisor within two academic years (or within four actual semesters) after admission and can only continue registration after the advisor is approved by the Curriculum Committee. Thesis advisors should be faculty members of the department (if the advisor leaves after the student passes the qualifying exam, the student may ask the original advisor to continue). If it is necessary to have an advisor from another department or school, a department professor must co-advise, and external advisors for the "Analysis and Geometry Group" and "Combinatorial Mathematics Group" must be teachers in mathematics, applied mathematics, mathematical physics, or related departments (who have led National Science Council projects in the past five years). External advisors for the "Mathematical Modeling and Scientific Computing Group" can be teachers from other fields (who have led National Science Council projects or industry-university cooperation projects in the past five years). If a student wishes to change their thesis advisor, they must submit a written application to the department, which becomes effective after notifying the original advisor, without requiring their consent. If an advisor wishes to terminate the advising relationship, they must submit a written application to the department, and the department will notify the student of the review result. After termination, the department will assist the student in finding another advisor. When a student changes advisors, the research results obtained under the original advisor's guidance can only be used for the degree thesis with the original advisor's consent.
3. The study period for doctoral students is 3 to 7 years, and for in-service students, it is 3 to 8 years, but those with outstanding performance may apply for graduation in 2 years. Except for in-service students, students should study full-time in the department. In-service students may reduce their study time with the agreement of their thesis advisor and department head, but it should not be less than half of the full-time requirement.
4. Doctoral students may apply for course exemption for compulsory courses taken in the department before admission, but the credits cannot be transferred. Applications for course exemption require excellent grades in the courses and approval from the original course instructor, and are determined by the Curriculum Committee. Special cases are determined by the Curriculum Committee.
5. Doctoral students become doctoral candidates after meeting the following two conditions:
 - i. Completing 18 credits (30 credits for students directly pursuing a doctorate after a master's degree, 36 credits for those directly pursuing a doctorate after a bachelor's degree). Specific course requirements are set separately.
 - ii. Passing the qualifying examination, with examination methods set separately.
6. Doctoral candidates who meet the following conditions may apply to the Curriculum Committee for the doctoral degree examination. Students taking the degree examination

must complete the "Thesis Originality Comparison" for reference by the examination committee. The conditions are:

- I. Serving as a teaching assistant for compulsory courses for sophomores or higher or for compulsory or elective graduate courses for three semesters, or having other teaching experience recognized by the Curriculum Committee (in-service students may use off-campus teaching experience).
 - II. Passing the final academic research ethics education test.
 - III. Completing the doctoral thesis.
 - IV. For those who have studied in the doctoral program for four years (excluding periods of leave), the accepted journal articles must meet one of the following two conditions:
 - (1) One article of 2.5 points or more;
 - (2) Several articles with a total of at least 3.5 points, with one article of 2 points.
 - V. For those who have studied in the doctoral program for five years or more (excluding periods of leave), the above conditions may be reduced, with accepted journal articles meeting one of the following two conditions:
 - (1) One article of 2 points or more;
 - (2) Two articles with a total of at least 2.5 points, with one article of 1.5 points.
 - VI. Those who apply for graduation within three years or whose research results have special contributions to society and industry are not subject to conditions 4 and 5, but must first obtain qualification recognition from the Qualification Review Committee. This committee is organized by the Curriculum Committee and should include at least five scholars in relevant research fields.
7. The doctoral degree examination is conducted by the Doctoral Degree Examination Committee. The committee members are proposed by the candidate's thesis advisor and should include 5 to 7 members (including the advisor) with the qualifications of assistant professor or higher, or associate research fellow at Academia Sinica or higher. The proposal is approved by the Curriculum Committee and submitted to the university president for appointment. Assistant professors or associate research fellows must hold a doctorate and have academic achievements. At least one-third of the committee members must be external members. The thesis advisor must attend the examination but cannot be the convener of the committee.
 8. Upon passing the doctoral degree examination, the university will award the doctoral degree according to regulations. Those who fail the degree examination and have not exceeded the study period may retake the examination before the end of the study period, with only one retake allowed. Those who fail the retake will be dismissed.
 9. The selection of candidates for various scholarships for doctoral students in the department is decided by the Curriculum Committee. Recipients of Ministry of Education scholarships must provide at least four hours of work per week for the department, with the work content and performance assessed by the Curriculum Committee.
 10. Matters not covered by these regulations shall be handled according to the Degree Conferral Act and the university's master's and doctoral degree conferral regulations.
 11. These regulations are established by the department's Curriculum Committee and implemented after review and approval by the college and university Curriculum Committees and the Academic Affairs Meeting. Amendments follow the same procedure.