

**National Yang Ming Chiao Tung University**  
**Department of Applied Mathematics**  
**Doctoral Program Regulations**

Revised: March and December 2011,  
May 2012, November 2014, March 2021, April 2023

1. Eligibility for Admission: Admission to the doctoral program follows the university's related regulations. Master's students from this department wishing to advance directly to the doctoral program must apply during the doctoral entrance examination registration period and take the same exams as other candidates. Upon passing, they must follow the university's application procedures. The doctoral program admits students into the "Analysis and Geometry", "Combinatorial Mathematics", and "Mathematical Modeling and Scientific Computing" groups. Students cannot transfer between groups after admission.
2. Selection of Thesis Advisor: Doctoral students must select a thesis advisor within two academic years (or four registered semesters) of admission, subject to approval by the Curriculum Committee. The thesis advisor must be a faculty member from this department. If the original advisor leaves after the student passes the qualification exam, the student may retain the advisor with departmental approval. In special cases where an external advisor is needed, a faculty member from this department must co-advise. External advisors for students in the "Analysis and Geometry" and "Combinatorial Mathematics" groups must be from related departments (e.g., mathematics, applied mathematics, mathematical physics) and must have led National Science Council projects within the last five years. For the "Mathematical Modeling and Scientific Computing" group, external advisors can be from other fields but must have led relevant projects within the last five years. To change advisors, students must submit a written application to the department, effective upon completion of the application process, without needing the original advisor's consent. Advisors wishing to terminate their advising relationship must submit a written request to the department, which will notify the student. The department will assist students in finding a new advisor if needed. Research results obtained under the original advisor's guidance can only be used for the dissertation with the advisor's consent.
3. Duration of Study: The study period for doctoral students is three to seven years, and for part-time students, three to nine years. Exceptionally outstanding students may apply for graduation in two years. Full-time study is required except for part-time students, who may reduce on-campus time with the consent of their advisor and the department head, but it must be at least half-time.
4. Course Credit Exemption: (1) Required course credits completed in this department before admission to the doctoral program can be exempted (but not counted towards the credit requirement) if the grades are excellent and approved by the Curriculum Committee. (2) Credits from graduate courses taken before admission, not counted towards the master's graduation credits, may be partially exempted, subject to Curriculum Committee approval. Exemption for courses taught by non-departmental faculty cannot exceed six credits.
5. Doctoral Candidacy: Doctoral students become candidates upon meeting the following conditions:
  - a. Completing 18 credits (30 credits for those advancing directly from the master's program, 36 credits for those advancing from the bachelor's program). Specific course requirements are stipulated separately.
  - b. Passing the qualifying examination as per departmental regulations.
6. Eligibility for Doctoral Degree Examination: Doctoral candidates may apply for the degree examination upon meeting the following criteria and completing a "thesis originality comparison" for committee reference:
  - (a) Serving as a teaching assistant for three semesters in required courses at the sophomore level or above, or having equivalent teaching experience recognized by the Curriculum Committee

(part-time students may include external teaching experience).

- (b) Passing the academic research ethics education test.
  - (c) Completing the doctoral dissertation.
  - (d) For candidates studying four years (excluding leave of absence), published papers must meet one of the following conditions: one paper worth 2.5 points or more, or multiple papers totaling at least 3.5 points, with one paper worth 2 points.
  - (e) For candidates studying five years or more (excluding leave of absence), published papers must meet one of the following conditions: one paper worth 2 points or more, or two papers totaling at least 2.5 points, with one paper worth 1.5 points.
  - (f) Exceptional cases or those with significant contributions to society and industry may waive conditions d and e, pending qualification by a review committee organized by the Curriculum Committee. The review committee must include at least five scholars from relevant fields.
7. Doctoral Degree Examination Committee: The examination is conducted by a committee of five to seven members (including the advisor), proposed by the advisor and approved by the department and university. Members must be associate professors or higher, or equivalent researchers, with at least one-third being external members. The advisor must attend but cannot chair the committee.
  8. Degree Conferral: Upon passing the examination and completing the thesis, including an originality comparison report confirmed by the advisor, the degree is conferred by the university. Students who fail but are still within their study period may retake the exam once. A second failure results in dismissal.
  9. Scholarships: Scholarship recipients are decided by the Curriculum Committee. Recipients of Ministry of Education scholarships must provide at least four hours of work per week to the department, evaluated by the committee.
  10. Post-Examination Procedures: Students must submit the "Degree Examination Score Report" by January 31 for the first semester or July 31 for the second semester. Upon passing, students must submit the score report, a hard copy of the thesis, originality comparison report, and relevant declarations, upload the thesis abstract and full text, and complete the graduation process before receiving the degree certificate. The deadline for submitting the thesis hard copy is the last working day before the start of the next semester. Failure to submit on time requires registration for the next semester. Students not submitting within their study period are dismissed.
  11. Transfer Students: Graduate students from other departments applying to transfer to this doctoral program follow the university's transfer regulations.
  12. Other Matters: Unaddressed issues follow the Degree Conferral Act and university graduate degree regulations.
  13. Implementation and Amendments: These regulations are formulated by the department's Curriculum Committee, reviewed by the college and university curriculum committees, and implemented after approval by the Academic Affairs Meeting. Amendments follow the same process.