

**National Chiao Tung University**  
***Department of Applied Mathematics***  
***Academic Regulations for Master Degree***

*Revised March 2011; April 11 2012*  
*Applicable to students enrolling in 2013 or thereafter*

**I. Programs and Thesis Advisor**

1. The Department invites applications for graduate studies at the Master level in the following two programs: “Analysis and Geometry” and “Combinatorics”. Transfer from one program to the other will not be accepted within the first year of enrollment. A Student who would like to do a transfer of program has to complete at least 6 credits of suggested course-work in the original program (3 credits for each semester) and make a formal request to the Department during the second semester of the first year of enrollment. The student’s request for a transfer of program has to be approved by the curriculum committee.
2. A Master student is required to identify his or her perspective advisor(s) before the second semester of the first year of study starts. In order to continue to register as a Master student in the second semester, the student has to obtain the approval of his or her choice of advisor from the curriculum committee. Advisors should be professors in the Department. However, a student may choose to have his or her course-work to be co-advised simultaneously by a faculty member from another department (or another university) and a full-time faculty member from the Department. The Department’s chair has the responsibility to assist a student in finding a co-advisor whenever such need may arise. Any future change of (thesis) advisor has to be approved and finalized by the curriculum committee. In the case when the original thesis advisor and the student disagree over the student’s request for the change of advisor, the curriculum committee will convene a meeting to settle the conflict.

**II. Course Work and Credits**

1. Credits which have been earned from graduate-level course work prior to the student’s enrollment in the Master Degree program and which have not been counted as graduation-credits for the student’s bachelor degree might be accredited with the approval from the curriculum committee. The accredited credit-hours should not exceed 6 credits.

2. Recipients of the Department's Master degree scholarships are identified by the curriculum committee through following the scholarship presenting regulations. According to regulations set up by the Ministry of Education, those receiving scholarships or grants from the Ministry of Education will have to provide services of at least 4 hours per week to the Department. The actual duties and working performance of each scholarship's recipient will be assigned and evaluated by the curriculum committee.
3. The Master degree course regulations in the department are as follows:
  - (A) Common Requirement: passing the "Colloquium" at least twice.
  - (B) Individual Requirements:
    - (i) "Analysis and Geometry" program: passing a two-semester course sequence in "Real Analysis" which is of 6 credits.
    - (ii) "Combinatorics" program: passing the course "Topics in Discrete Mathematics" at least twice; passing the course "Graph Theory" which is of 3 credits; passing the course "Introduction to Combinatorics" which is of 3 credits.

### **III. Thesis**

Immediately after completing the required courses and finishing the Master thesis, a Master student should apply for his or her Master degree examination. An examination committee consisting of three to five members (including the advisor) should be suggested by the (thesis) advisor. Any individual which is selected as a member in the examination committee should have the minimal academic qualification either as a post-doctoral researcher, an assistant professor, or an assistant researcher at Academia Sinica. Moreover, at least one-third of the committee members should be faculty members from another department (or from other universities). After being approved by the curriculum committee, the list of suggested examination committee members should be finalized by the University president.

#### **IV. Graduation and Changing to Ph.D. Program**

1. After passing the Master degree examination, the student is qualified to apply for a Master degree. A student who fails to pass the Master degree examination and who has not yet reached the maximal duration of his or her term of study will be allowed to retake the examination before the expiration of his or her term of study. The Master degree examination can only be retaken once. In other words, a student failing the qualifying examination twice will be expelled from the Master program.
2. Master students who wish to change to the doctoral program of the Department should hand in their applications during the registration period of the University doctoral program entrance exam, and will have to go through the same examination process with all other examinees (including inspections of application materials, oral exams and written exams). After passing these exams, the applicant may make a formal request to the University for admission to the doctoral program of the Department.
3. In the case if a student getting direct admission into the doctoral program would like to transfer back into the Master degree program, he or she has to go through an assessment conducted by the curriculum committee. The curriculum committee will then report the student's case to the University in order to obtain approval from the University to finalize the change of the student's academic status.

#### **V. Prologue**

1. Any regulations or rules not being indicated above shall be processed according to related rules which pertain to the degree-awarding law, and the University Master and Ph.D. degree-awarding policy.
2. The regulations as demonstrated here are prepared by the Department curriculum committee. These regulations have been effective immediately after they were reviewed successively by the college curriculum committee and the University curriculum committee, and approved during the academic affair meeting. Any future revision(s) of this guideline shall follow the same procedure.

3. In case of discrepancy between the English or Chinese version, the Chinese version shall prevail.