

National Chiao Tung University Department of Applied Mathematics PhD Graduate Students

Courses and Qualifying Examination Regulations

Applicable to the 97th academic year enrolled Students (2008/03)

Courses:

1. PhD students must complete 18 credits (those who continue from M.S program must complete 30), at least 12 of those are offered by the department. Regular courses are as follows:

Analysis and Geometry:

1. Real Analysis (required)
2. Ordinary Differential Equations
3. Partial Differential Equations
4. Numerical Analysis
5. Functional Analysis
6. Operator Theory
7. Differential Geometry
8. Number Theory
9. Probability Theory
10. Colloquium (4 passes are required upon graduation)

Combinatorics:

1. Graph Theory (required)
2. Algebraic Graph Theory
3. Design and Analysis of Algorithm
4. Group Testing
5. Interconnected Networks
6. Design Theory
7. Coding
8. Cryptography

9. Topics in Discrete Mathematics

10. Colloquium (4 passes are required upon graduation)

2. Must pass the 2nd stage of the high-intermediate level of the General English Proficiency Test.

Qualifying Examination Subjects:

1. algebra. 2. geometry. 3. analysis. 4. differential equations.
5. probability. 6. numerical analysis. 7. discrete mathematics.

Allocated Qualifying Examination Duration and Time

1. All examinees must pass 2 subjects (no inter divisional examination is allowed).
2. Students are required to pass at least one subject in the first two years after enrollment and pass two different subjects within three years. Exceptions are applied to students who are on a leave of absence. Those admitted to the PhD program with a bachelor degree are allowed of a three year limit to pass the first subject and of a four year limit to pass the two subjects. Only one make up exam is allowed for passing each subject. Students who do not meet the requirements will be reported to the graduate school and forced to take a withdrawal from the university.
3. Students can request to take the Qualifying Examination starting from the end of the first semester after enrollment. The desired examination subject must be made at the end of previous semester. An examination formulation panel will then be set up by the head of department and finalized by the department course committee.