

# National Chung Hsing University Department of Applied Mathematics

## Specific Rules Governing Doctoral Qualification Examinations

January 13, 1999 Passed by the Department Affairs Meeting

September 12, 2022 Amendment (Articles 8 and 9) passed by the Department Affairs Meeting

December 27, 2023 Amendment (Article 2) passed by the Department Affairs Meeting

Article 1 The Department of Applied Mathematics has formulated the *Specific Rules Governing Doctoral Qualification Examinations* in accordance with Article 5 of the *Doctoral Degree Candidate Qualification Examination Regulations*.

Article 2 There are three different qualification examination pathways for students to choose from:

**Category 1:** Publish papers

1. Doctoral students must publish one paper in an SCI-, SCIE-, SSCI-, EI-, or Scopus-indexed journal under the Department's auspices within their first five semesters. The paper must be accepted or published.
2. The paper must be co-authored with the student's advisor (including their co-advisor), with the student being the sole first author. The paper will not be counted as part of the student's dissertation required for graduation.

**Category 2:** Pass the following subjects

- (1) Advanced Mathematical Statistics
- (2) Applied Statistics (with regression analysis and multivariate analysis each accounting 50%)

**Category 3:** Pass two of the following subjects, with no more than one subject obtained through a credit transfer (applications must be made before taking the course).

- (1) Analysis (2) Differential Equation (3) Numerical Analysis (4) Algebra (5) Discrete Mathematics

Article 3 Examination date: Held within the first week of each semester (i.e., the instructions start date).

Article 4 Examination application: Applicants shall apply to the Department for the examination and select their subjects prior to the final examination week in the previous semester. Once chosen, the examination subjects cannot be changed.

Article 5 Examination standards: Each subject is graded out of 100, with 70 being the passing grade.

Article 6 Written examination question-setting: Question-setting committee members of each subject must submit the examination questions directly to the Department chair for review.

Article 7 Written examination grading: Each committee member grades only answers to questions they set, and the grades are submitted confidentially to the Department chair. Once all the committee members have completed grading their portions, the convener of each subject calculates and publicly announces the total grade. No changes to the grades can be made they have been announced.

Article 8 If candidates take a leave of absence in the semester following the qualification examination, any subjects passed during that examination will not be counted. Special cases may be reviewed and decided by the competent meeting(s).

Article 9 These Specific Rules and any amendments made hereto shall be implemented upon passage by the Department Affairs Meeting.