

Regulations for the Qualification Examination of Doctoral Degree Candidates

Department of Chemical and Materials Engineering, Tunghai University

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Article 1

These regulations are established based on the university's guidelines for the qualification examination of doctoral degree candidates.

Article 2

Students in the doctoral program must complete the required coursework and pass the qualification exam successfully within the allotted study timeframe to be considered for doctoral candidacy.

Article 3

The qualification examination includes the following components:

1. Basic Subject Qualification Exam

- a. For students who graduated from the major in Chemical Engineering or Chemical and Materials Engineering:

Must pass one of the following three subjects: Advanced Transport Phenomena, Advanced Chemical Engineering Thermodynamics, Advanced Chemical Reaction Engineering with a score of at least 70.

Alternatively, students who take one of these courses and achieve a semester grade of at least 85, or at least 70 while ranking in the top half of the class, will be considered as having passed.

- b. For students who graduated from other majors rather than Chemical Engineering or Chemical and Materials Engineering:

Must pass one of the following four subjects: Advanced Transport Phenomena, Advanced Chemical Engineering Thermodynamics, Advanced Chemical Reaction Engineering, Principles of Chemical Engineering with a score of at least 70.

Alternatively, students who enroll in one of these courses and earn a semester grade of at least 85, or at least 70 while ranking in the top half of their class, will be regarded as having passed.

2. Review of Research Proposal

3. Publication of Academic Papers

Students who pass all three components will have their qualifications verified by the department, and a formal notification will be submitted to the university's academic affairs office for record-keeping.

Article 4

Subject exams take place annually. Students must apply at least two weeks prior to the end of the fall semester, with exams scheduled for the second week of the spring semester.

Exam scores are evaluated by an appropriate committee. Students who do not pass may retake the exam the next academic year, but only once.

Those who do not pass the retake will be dismissed.

If a student who has been dismissed is later readmitted to the doctoral program, previously passed subjects will not be counted.

Students who sign up for the exam but do not attend without a valid reason will be prohibited from taking the exam for one year. Exceptions may be granted with supporting documentation.

Master's students can take the exam, and if they pass, their qualification will be valid for up to six years after they are admitted to the doctoral program.

Article 5

The qualification exam is overseen by the Basic Subject Qualification Examination Committee of the doctoral program, which comprises three to five faculty members holding doctoral degrees, and is chaired by the department head.

Article 6

After completing the subject exam, students may submit their research proposal for their doctoral dissertation for review.

The review committee consists of three professors from the department and one external professor.

The committee must approve the proposal before the student delivers a public oral presentation, followed by an oral defense.

The advisor is not able to serve as the chair of the review committee.

The proposal needs to be submitted one week prior to the oral defense, and copies should be provided to all committee members.

The committee chair must notify the department office at least three days prior to the oral defense and publicly announce the details (time, location, topic, candidate's name, and committee members).

A passing score is 70, and more than half of the committee members must approve for a student to pass.

If the students do not pass, they can apply for a retake after three months.

Article 7

Doctoral candidates are required to conduct original research and fulfill the department's publication requirements:

1. Articles should be published in journals listed in the SCI.s.
2. At least two of the accepted or published SCI papers must have a combined impact factor of 0.5 or higher.
3. If there are three or more authors, the contribution of each must be confirmed.
4. Before the dissertation defense, the student is required to deliver a public lecture within the department.

Article 8

Students wishing to appeal their qualification exam results may do so following separately defined procedures. Any issues not covered by these regulations will be addressed according to the university's research degree examination rules.

Article 9

These regulations will take effect after being approved by the Department Affairs Meeting and submitted to the Academic Affairs Office for record-keeping. Amendments will follow the same procedure.