

National Central University
Department of Information Management
Regulations for Graduate Study in the Doctoral Program

Amended and approved by the Departmental Affairs Meeting on May 6, 2014
Revised and approved by the Departmental Affairs Meeting on September 30, 2014
Revised and approved by the Department Curriculum Committee on April 19, 2016
Revised and approved by the Department Curriculum Committee on September 21, 2016
Revised and approved by the Departmental Affairs Meeting on October 18, 2016
Approved by the College Curriculum Committee on December 6, 2016
Approved by the College Curriculum Committee on May 16, 2017
Recorded in the Academic Affairs Meeting on June 14, 2017
Revised and approved by the Departmental Affairs Meeting on May 21, 2019
Approved by the College Curriculum Committee on June 11, 2019
Recorded in the Academic Affairs Meeting on October 9, 2019
Revised and approved by the Departmental Affairs Meeting on April 14, 2020
Recorded in the Academic Affairs Meeting on June 17, 2020
Revised and approved by the Department Curriculum Committee on December 7, 2020
Revised and approved by the Departmental Affairs Meeting on December 15, 2020
Revised and approved by the Research and Development Committee on September 17, 2021
Revised and approved by the Departmental Affairs Meeting on September 28, 2021
Approved by the College Curriculum Committee on December 7, 2021
Recorded in the Academic Affairs Meeting on January 12, 2022

Article 1: These regulations are established in accordance with the university's "Academic Regulations," "Detailed Rules for Doctoral and Master's Degree Examinations," and "Credit Transfer Regulations."

Article 2: The doctoral program in this department is divided into the "Information Systems Group," "Management Group," and "Industry Group."

Students in the Information Systems Group must select one or two advisors by the end of their first academic year. Students in the Management Group and Industry Group must select their advisors no later than one year after passing the qualifying exam.

At least one advisor must be a full-time faculty member of this department at the rank of assistant professor or above. The advisor(s) and the student must sign the "Thesis Advisor Consent Form," which should then be submitted to the departmental office. The original form will be kept by the office, while copies will be held by the student and the advisor(s).

To change advisors, the student must first obtain the original advisor's signature on the "Termination of Thesis Advisor Agreement" form and follow the "University Guidelines for Interaction between Thesis Advisors and Graduate Students." Any disputes can be submitted to the Departmental Affairs Meeting for resolution.

If a new student finds that their interests do not align with their current group, they may apply to transfer to another group after completing two courses from their original group and three courses from the desired group (Management Group courses: Information Management Research, Multivariate Analysis, and Research Methods; Systems Group courses: Software Engineering, Computer Networks, Business Intelligence, and Intelligent Information

Systems). The transfer application must be submitted before the start of the second academic year, and it will be approved upon review by the Departmental Affairs Meeting.

The qualifying examination and graduation requirements must meet the criteria of the group after the transfer.

Article 3: The qualifying exam subjects for the "Information Systems Group" include Management Information Systems, Software Engineering, Computer Networks, Business Intelligence, and Intelligent Information Systems. The exam is held once at the beginning of the second semester each academic year. Candidates may choose to take part or all of the subjects each time, with a maximum of two attempts per subject.

The exam grades are categorized into four levels: A, B, C, and F, where A is 4 points, B is 3 points, C is 2 points, and F is 0 points. For subjects in the qualifying exam that students have taken as courses within the department and scored 80 or above, these courses are considered equivalent to a C (2 points) on the qualifying exam and do not count towards the exam attempt limit.

Exam scores and course grades may be calculated separately, with the best score for each subject being considered. Students must pass the qualifying exam within four semesters. Failure to do so will result in dismissal from the program.

If a student cannot complete the qualifying exams within the specified time frame due to special circumstances, they may apply for an extension. The extension must be approved by the department chairperson and the Information Systems Group faculty meeting, but the number of attempts per subject is still limited to two.

The conditions for passing the qualifying exam are that the student must score at least 2 points in each subject and achieve a total score of 13 points across all five subjects.

Article 4: The qualifying exams for the 'Management Group' and 'Industry Group' are generally held once a year (except for those who fail the first exam), scheduled at the beginning of the second semester each academic year. Students must take the qualifying exam by their second academic year.

Prior to taking the exam, students must have completed the courses in Information Management Research, Multivariate Analysis, Management Information Systems, and Research Methods.

Students who fail the first qualifying exam must take a second exam in the first semester of the following academic year (the first semester of the third academic year after enrollment). The rules for the second qualifying exam are the same as for the first. Students who fail the second qualifying exam will be dismissed.

Qualifying Examination Subjects:

- A. Management Information Systems (60%)
- B. Research Methods (40%)

Students must pass the qualifying exam by the end of the first semester of their third academic year. Failure to do so will result in dismissal. In cases where special circumstances prevent a student from completing the exam within the prescribed time frame, an extension may be granted with the approval of the department chairperson and a faculty meeting for the Management Group. However, the exam is still limited to two times.

Article 5: Course Requirements are as follows:

1. **For the 'Information Systems Group,'** students must complete at least 31 credits in addition to the thesis.
 - a) Core Courses (8 credits): Management Information Systems, Research Methods, Management Communication (2 credits).
 - b) Management Courses (at least 9 credits): At least 9 credits from graduate-level management courses (Marketing Management, Financial Management, Production and Operations Management, Human Resource Management, Corporate Strategy).
 - c) Seminar (5 credits): 5 semesters, 1 credit per semester.
 - d) Major Field Courses (at least 9 credits): At least 9 credits from courses in the major field, as designated by the advisor.
2. **For the 'Management Group,'** students must complete 31 credits, excluding the thesis and any transferred courses. Credits earned as a full-time or part-time student in doctoral programs, either within the department or from other institutions, may count toward the required 31 credits, pending approval by the Curriculum Committee.
 - a) Prerequisite Courses (27 credits):
 - i. Management Courses (18 credits): Marketing Management, Financial Management, Production and Operations Management, Human Resource Management, Managerial Accounting, Corporate Strategy.
 - ii. Information Technology Courses (9 credits): Software Engineering, Enterprise Computer Networks, Information Models.
 - iii. Prerequisite courses may be waived based on prior graduate credits or relevant work experience, subject to Curriculum Committee approval. Exams may also be used for credit recognition if necessary.
 - b) Core Courses (17 credits):
 - i. Information Management Research; Research Methods (Research Methods, Multivariate Analysis, Qualitative Research Methods, Quantitative Research Methods, and Theoretical Development and Model Building in Information Systems -- any three courses); Management Communication (2 credits); and Management

Information Systems.

- ii. If students have completed some core courses during their master's program, they may apply for course exemption by taking other recommended relevant courses as suggested by their advisor, and after approval from the Curriculum Committee.
 - c) Seminar (5 credits): 5 semesters, 1 credit per semester.
 - d) Three Major Field Courses (9 credits): Students may define their major field and its courses, with approval from their advisor.
 - e) Requests for course credit transfer must be submitted to the Curriculum Committee within the first academic year after enrollment.
3. **For the 'Industry Group,'** students must complete at least 24 credits, excluding the thesis.
- a) Prerequisite Courses (18 credits):
 - i. Management Courses: Marketing Management, Financial Management, Production and Operations Management, Human Resource Management, Managerial Accounting, Corporate Strategy.
 - ii. Information Technology Courses: Software Engineering, Enterprise Computer Networks, Information Models.
 - iii. Prerequisite courses may be waived based on prior graduate credits or relevant work experience, subject to Curriculum Committee approval. Exams may also be used for credit recognition if necessary.
 - b) Core Courses (14 credits):
 - i. Information Management Research and Research Methods courses: (Research Methods, Multivariate Analysis, Qualitative Research Methods, Quantitative Research Methods, and Theoretical Development and Model Building in Information Systems -- select any two courses); Management Communication (2 credits); and Management Information Systems.
 - ii. If students have completed some core courses during their master's program, they may, with advisor recommendation and Curriculum Committee approval, substitute other relevant courses.
 - c) Seminar (1 credit): 1 semester, 1 credit per semester.
 - d) Three Major Field Courses (9 credits): Students may define their major field and courses, with approval from their advisor.
 - e) Requests for course credit transfer must be submitted to the Curriculum Committee

within the first academic year after enrollment.

Article 6: The review process for the application of the thesis proposal oral examination is as follows:

1. After obtaining approval from the thesis advisor, the thesis proposal must be submitted and a Thesis Proposal Oral Examination Committee must be formed to conduct an oral review of the proposal.
2. The Thesis Proposal Oral Examination Committee shall consist of five to seven members, who may be recommended by the thesis advisor and must meet the requirements set forth in the university's 'Regulations for Doctoral and Master's Degree Examinations.'
3. The thesis proposal oral examination is considered passed if the average score is 70 or above. If the proposal does not pass, it may be resubmitted after six months.

Article 7: Doctoral candidates in the department must meet the publication requirements for journal papers and be approved by their thesis advisor before applying for the doctoral dissertation oral examination.

1. 'Information Systems Group' Publication Requirements (must satisfy one of the following conditions):

- (a) Publish one paper in a journal indexed by SCIE or SSCI.
- (b) Publish two papers in TSSCI journals or other international academic journals with a peer-review process, and have completed six years of study.

2. 'Management Group' Publication Requirements (must satisfy one of the following conditions):

- (a) Publish one paper in an SSCI-indexed journal.
- (b) Publish two papers in TSSCI journals or other international academic journals with a peer-review process, and have completed six years of study.

3. 'Industry Group' Publication Requirements (must satisfy one of the following conditions):

- (a) Publish one paper in a TSSCI journal or other international academic journals with a peer-review process.
- (b) Publish one paper in an academic journal with a peer-review process, and have completed five years of study.

4. The above-mentioned journal papers must be co-authored with the thesis advisor and published under the name of "National Central University." At least one paper must list the student as the first author (excluding the advisor).

5. Published journal papers cannot be teaching cases, nor can they be modifications of the student's master's thesis or the theses/dissertations of others. Each journal paper may only be used to satisfy the graduation requirements for a single degree.

Article 8: Before the thesis oral examination, students must submit all related documents concerning their published journal papers to the Research Development Committee for review. Only after passing this review can they apply for the degree examination. The relevant documents include the full text of the journal papers, all review comments from the submission process, and the author's responses. An acceptance letter must be provided if the paper has been accepted but not yet published.

Article 9: The duration of study is to be handled in accordance with the regulations set forth by the Ministry of Education and the university.

For the 'Information Systems Group' and 'Management Group,' the English proficiency required for graduation is bench-marked against the third-level/high-intermediate scores from various English proficiency tests, as listed in the table below:

Test Name	GEPT	FLPT -English		CSEPT	TOFEL	IELTS	TOEIC	BULATS
Score	Passed the preliminary test of GEPT high-intermediate level	Written Test: Listening, Vocabulary and Usage, Reading	Speaking Test	240	Paper-based: 550 Computer-based: 213 New Internet-based: 79-80	6.0	750	ALTE Level 3
		195	S-2					

Students who score between 730 and 750 on the TOEIC test may meet the English graduation requirement by presenting a paper in English at an international academic conference listed in the Ministry of Science and Technology's Division of Humanities Management's second academic field reference list, or at an international academic conference with full paper review and an acceptance rate of 30% or lower, before the degree examination.

Students re-enrolling in the department's doctoral program, either in the 'Information Systems Group' or 'Management Group,' are not required to redo previously satisfied requirements (such as qualifying exams or course work), provided these requirements have not changed and are in accordance with the Ministry of Education's and the university's graduate credit transfer regulations, and upon approval by the curriculum committee.

Article 10: Any matters not covered in these regulations shall be handled in accordance with the relevant regulations of the Ministry of Education and the university.

Article 11: These regulations shall be implemented after approval by the Departmental Affairs Meeting and the College Curriculum Committee, and subsequent filing with the Academic Affairs Meeting. The same procedure applies to any amendments.