

Implementation Guidelines for Graduate Students in Department of Civil Engineering

Amended and approved by the Departmental Affairs Council on May 30, 2022

1. This guideline is suit for graduate students who enroll after (in) academic year 2022 (Fall 2022).
2. Required Credits: (language courses will not be included)
 - Master Degree Program: Students shall normally pursue at least **24** credits for taking classes (at least **15** credits must have been completed at Department of Civil Engineering), and extra 6 thesis (dissertation) credits after completing defense.
 - Doctoral Degree Program: Students shall normally pursue at least **18** credits for taking classes (at least **9** credits must have been completed at Department of Civil Engineering), and extra 12 thesis (dissertation) credits after completing defense

Graduate students who enroll after (in) academic year 2014 from non-Civil Engineering-Originated are required to complete at least 15 credits of specialized courses in our undergraduate program, and the following courses will not be included in graduation credits: Engineering Graphics(1)(2), Introduction to Computers, Applied Mechanics, Engineering Mathematics(1)(2), Surveying, Surveying Practice, Engineering Materials, Engineering Materials Lab, Transportation Engineering, Dynamics, Fluid Mechanics, Mechanics of Materials(1), Soil Mechanics, Soil Mechanics Lab, Engineering Geology, Engineering Project Management, Reinforced Concrete, Structural Theory(1). [Qualification of international students will be judged by Academic Committee]
3. Students can apply for credit-waiver for graduation credits of master program if they have already completed similar subjects of master or Ph.D. degree in the past. Credit-waiver must be based on courses completed with a grade of 70 or above in courses with similar content completed at undergraduate level without being admitted as part of the graduation credits; and students can apply for credit-waiver a maximum of 6 credits for Master program under the advisor's approval. Our pre-Master students are admitted to enrolling our master program who can apply for credit-waiver a maximum of 18 credits for required credits (not include credit of thesis). Ph.D. students' application will not be accepted.
4. Withdrawn or non-graduate graduate students who were our department or others can apply for credit-waiver for graduation credits by courses they have already completed in school. (a maximum of 9 credits)
5. Credits earned on courses offered by other departments may be substituted toward elective course requirements (a maximum of **9** credits) with the approval of the advisor.
6. Graduate students must complete 4 'Special Topics' (seminar) in the first four semesters; these seminars are not included in the graduation credits, but they must be completed with a grade of 70 or above. Master program students who have completed requirements for early graduation are allowed to complete this course in the same semester. [Grades of international students will be graded by advisors].
7. Students must complete a minimum of two core courses as following by own divisions:
 - ◆ Structure Engineering: Theory of Elasticity, Dynamics of Structure, Finite Element Method
[彈性力學、結構動力學、有限元素法]
 - ◆ Geotechnical Engineering: Advanced Soil Mechanics, Advanced Foundation Engineering, Advanced Engineering Geology, Advanced Rock Mechanics, Soil Dynamics
[高等土壤力學、高等基礎工程、高等工程地質、高等岩石力學、土壤動力學]
 - ◆ Traffic Engineering: Pavement Analysis, Engineering Statistics, Advanced Bituminous Materials
[鋪面分析、工程統計、高等瀝青材料學]
 - ◆ Structures and Materials: Mechanical Properties of Materials, Deformation Mechanisms of Materials, Fracture Mechanics, Advanced Steel Design, Advanced Reinforced Concrete,
[材料機械性質、材料變形機制、破壞力學、高等鋼結構、高等鋼筋混凝土]
 - ◆ Engineering Management: Financial and Cost Concepts for Engineering & Construction, Project Schedule Control, Operation Research, Engineering Information Management
[工程成本與財務、工程時程控制、作業研究、工程資訊管理]

Graduate programs shall establish their general education courses of academic ethics (a minimum of six hours), writing in Chinese and English (a minimum of one hour), and communication skills (a minimum of one hour).

Guidelines for on General Education Course

In accordance with the Article 2 on NCKU General Principles of Curriculum Planning, 'Graduate programs shall establish their general education courses of academic ethics (a minimum of six hours), writing in Chinese and English (a minimum of one hour), and communication skills (a minimum of one hour).', the rule of the Department of Civil Engineering as follow:

1. Course of Academic Ethics

Student shall complete courses at website (a minimum of six hours), and submit the certificate to the department office for review three months ahead before graduation.

Course on the website is accredited by the department. Please register courses according to guidelines on the website.

(1) <https://ethics.nctu.edu.tw/login/s/> Center for Taiwan Academic Research Ethics Education

(2) <https://courses.epigeum.com/login> Epigeum Research Integrity

(3) <https://about.citiprogram.org/> Collaborative Institutional Training Initiative (CITI)

2. Course of Writing in Chinese and English, and Communication Skills

Student shall complete course of writing in Chinese and English (a minimum of one hour), and communication skills (a minimum of one hour). Student shall attend seminar courses in the department, and the attendance record can be the proof.

※ This English version was translated from the original Chinese text. In the event of any discrepancy, the Chinese will take precedence.