

NATIONAL SUN YAT-SEN UNIVERSITY

Department of Mechanical and Electromechanical Engineering

Regulations for Core Courses of Postgraduate Students in Master's and Doctoral Programs

Amended and approved by the 3rd Department General Meeting on November 21, 2007, School Year 96.

Approved by the 1st Department Research and Development Board and Division Conveners Meeting on December 27, 2007, School Year 96.

Amended and approved by the 10th Department General Meeting on March 27, 2014, School Year 102.

Approved by the 4th Department Research and Development Board and Division Conveners Meeting on April 23, 2014, School Year 102.

Amended and approved by the 10th Department General Meeting on March 22, 2023, School Year 111.

Amended and approved by the 3rd Department General Meeting on October 30, 2024, School Year 113.

Amended and approved by the 7th Department General Meeting on March 2, 2026, School Year 114.

- I. The present regulations are specifically issued for enhancing master's and doctoral students' research and professional abilities and to equip them with appropriate moral qualities.
- II. Core courses for the department's postgraduate students are categorized in accordance with Divisions of Thermofluid, Solid Mechanics, Control, Design and Manufacturing, and Micro-Nano Systems. Fundamental courses and professional courses are as follows:
 - A. Thermofluid Division
 1. Fundamental courses: Engineering Mathematics, Thermodynamics, Fluid Mechanics, Heat Transfer, and Thermofluids Experiment
 2. Professional courses: Lectured courses
 - B. Solid Mechanics Division
 1. Fundamental courses: Engineering Mathematics, Applied Mechanics, Mechanics of Materials, Principles of Machine Design, and Material Testing Laboratory
 2. Professional courses: Lectured courses
 - C. Control Division
 1. Fundamental courses: Engineering Mathematics, Applied Mechanics, Electric Circuit Theory, Applied Electronics, Automatic Control, Electronics Laboratory, and Control Laboratory
 2. Professional courses: Lectured courses

D. Design and Manufacturing Division

1. Fundamental courses: Engineering Mathematics, Graphics, Mechanism, Electro-Mechanical Materials, Precision Manufacturing Process, Principles of Machine Design, Mechanical Manufacturing Laboratory (or Shop Work)
2. Professional courses: Lectured courses

E. Micro-Nano Systems Division

1. Fundamental courses: Engineering Mathematics, Thermodynamics, Mechanism, Applied Mechanics, Mechanics of Materials, Electro-Mechanical Materials, Precision Manufacturing Process, Mechanical Manufacturing Laboratory (or Shop Work)
2. Professional courses: Lectured courses

- III. Upon the registration of postgraduate students, faculty members of each division shall review their fundamental course backgrounds in accordance with divisional regulations. If supplementary undergraduate courses are required, students must achieve a passing grade (60) prior to their thesis defense. The specific requirements are as follows:

Thermo-Fluids Division: Fundamental courses are reviewed at admission; any deficiencies must be completed before graduation.

Solid Mechanics, Controls, and Micro-Nano Systems Divisions: No mandatory review is required; the advisor shall evaluate whether supplementary courses are necessary.

Design and Manufacturing Division: Fundamental courses are reviewed at admission; the advisor shall assess the need for supplementary coursework.

- IV. Prior to graduation, faculty members of each division shall verify that a postgraduate student's minimum graduation credits include the required professional lecture courses as specified by their respective divisions:

Thermo-Fluids Division: At least two courses (6 credits).

Solid Mechanics and Controls Divisions: At least three courses (9 credits).

Design and Manufacturing Division: At least three courses (9 credits), OR two courses (6 credits) plus one common course (3 credits).

Micro-Nano Systems Division: At least four courses (12 credits).

- V. The present regulations shall be implemented following approvals of department general meetings and college general meetings, as well as authorization of the president. The same procedure shall be carried out when amendments are to be made.

英文法規翻譯內容若有疑義，以中文法規為主。

For the avoidance of doubt in English version regulation, Chinese version will be prevailing.