

## Graduate School of Engineering

### Diploma Policy

1. The master's program in the Graduate School of Engineering aims to train researchers, engineers, and designers with a high level of expertise, the ability to contribute to society, and knowledge of ethics in their field of specialization. It also aims to create researchers who are highly professional and hold an international perspective. Successful candidates will have attended courses for a specified period and have acquired the necessary credits for the Graduate School of Engineering. Those who have passed a final examination on their master's degree thesis, or a final examination on the outcome of a specific piece of research, will receive a master's degree (Master of Engineering).

A graduating student will acquire the following abilities:

- (1) Advanced expertise relating to the specialist fields of engineering.
  - (2) The ability to carry out research in the specialist fields of engineering.
  - (3) The ability to think logically and critically based on the high level of expertise, research skills and insight acquired in the field of engineering; and to discover, analyze and solve problems.
  - (4) The ability to undertake research activities with an international perspective based on the high level of specialist knowledge and insight acquired in the specialist fields of engineering.
2. The doctoral program in Engineering aims to train researchers who have excellent creativity in research, the ability to contribute to society, knowledge of ethics, and development, and play a central role in research and educational institutions. A doctoral degree (Doctor of Engineering) is accredited and awarded to those who have attended courses in the program for a specified period, who have acquired the necessary credits for the major to which they belong, had their doctoral dissertation recognized as having reached the standard required, passed a consequent examination, and an examination of general academic ability.

A graduating student will acquire the following abilities:

- (1) A highly sophisticated expertise relating to the specialist fields of the major to which they belong.
- (2) The ability to carry out research in the specialist fields of Engineering.
- (3) The ability to think logically and critically based on the highly sophisticated level of expertise, the ability to conduct research, and insight acquired in the engineering major to which they belong; and to discover, analyze and solve problems.
- (4) The ability to lead research activities with an international perspective based on the high level of specialist knowledge, research and insight acquired in the specialist fields of Engineering.
- (5) The ability to add new knowledge to the academic field and the ability to contribute to cultural progress.

### Curriculum Policy

1. In the master's program, the curriculum is based on courses in the liberal arts, basic academic ability and expertise in research gained in undergraduate study; and organized so as to realize the purpose set for each engineering major, fostering human resources through specialist courses, courses in the liberal arts, and research guidance.

- (1) In order to acquire more advanced specialist knowledge in the field of engineering; special lectures, experiments and seminars are taught in a focused and effective manner.

- (2) Courses in the liberal arts not only foster the attainment of a broad academic knowledge of the field of study, but also support, the attainment of better communication skills, a deeper understanding of ethics, and a greater sense of global literacies.
  - (3) Master's research helps the acquisition of the knowledge and experience necessary to conduct research through understanding of the literature and discussions with supervisors. Moreover, master's research helps students to develop such skills as: the ability to communicate research; to problem-solve; and to foster researchers, engineers, or designers, with an international perspective both at home and abroad.
2. The doctoral program is based on the advanced ability to expand on the knowledge about research and development in engineering that was acquired up to master's program level. The doctoral program develops graduates with the high level of research skills necessary for the workplace.
- (1) Doctoral research helps the acquisition of the knowledge and experience necessary to conduct research through an understanding of the literature and discussions with supervisors. Moreover, doctoral research helps to develop such skills as: the ability to communicate research; to problem-solve; and to foster researchers, engineers, or designers, with an international perspective both at home and abroad.
  - (2) Courses in the Liberal arts are available which support the high degree of academic knowledge and practical ability necessary for students to carry out research and development as independent researchers or highly skilled professionals.

## Admissions Policy

The educational research philosophy of the university is based on the meritocratic tradition.

1. The master's program is based on the basic academic ability and wide range of liberal arts acquired in the bachelor's degree program. The aim is to acquire the necessary skills for those with the intent to discover and solve problems through research in the specialist field of engineering. The master's degree program seeks those who are willing to conduct research in collaboration with a diverse range of people.
2. The doctoral program is based on the expertise in research acquired up to master's program level. The doctoral program seeks those who are willing to independently conduct creative research.
3. The university seeks those who are motivated to work with an international perspective in society, based on professional knowledge and education; and does so through a range of selection methods.

Evaluation methods for the types of abilities required for the admissions policy in differing entrance examinations:

(General entrance examination)

The university seeks those who have professional knowledge, English ability, thinking skills and communication skills commensurate with the characteristics of the major; and those who have the determination to conduct independent research. In the master's program, candidates will be selected through an examination of documents submitted, written examinations (specialist subject, foreign language), English proficiency test results by an external organization, and in interviews. In the doctoral program, candidates will be selected through an examination of documents submitted, written examinations (specialist subject, foreign language). Candidates are further chosen on the basis of an oral examination of their master's thesis.

(Recommendation entrance examination)

In the master's program, the university seeks students who have professional knowledge, English ability, thinking skills and communication skills commensurate with the characteristics of each major, and those who have the determination to conduct independent research. Candidates will be selected through an examination of documents submitted, essay and interviews.

(Special selection for working people, foreign student entrance examination)

The university seeks those who have acquired experience in research institutes or companies, have a positive attitude toward learning, and/or have knowledge and skills acquired abroad. In the master's program, students will be selected through an examination of documents submitted, a written examination (specialist subject, foreign language) and interview. In the doctoral program, students will be selected through an examination of documents submitted, a written examination (specialist subject, foreign language), and an oral examination of their master's thesis.