# Graduate School of Science and Technology

### **Diploma** Policy

1. The master's program aims to train researchers, technicians and designers with a high level of expertise 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. 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 Science), or a master's degree (Master of Engineering)

A graduating student will acquire the following abilities:

- (1) Advanced expertise relating to the specialized fields of the major.
- (2) Research skills relating to the specialized fields of the major to which you belong.
- (3) The ability to discover, analyze and solve issues based on flexible thinking, deep insight and the highly sophisticated level of expertise and research skills acquired.
- (4) The ability to undertake research activities with an international perspective based on the high level of specialized knowledge and insight acquired in the major to which you belong.
- 2. The doctoral program aims to train researchers who have excellent creativity in research and development; and play a central role in research and educational institutions. A doctoral degree (Doctor of Science) or 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 each major, 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 specialized fields of each major.
- (2) The ability to carry out research in the specialized fields of each major.
- (3) The ability to research, discover, analyze and solve issues based on flexible thinking, deep insight and the highly sophisticated level of expertise acquired.
- (4) The ability to be active with an international perspective in fields requiring specialization based on the highly sophisticated level of expertise and research skills acquired in each major.

# **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 major, through specialist courses, courses in the liberal arts, and research guidance for science and engineering majors.

- (1) In order to acquire more advanced specialist knowledge; special lectures, experiments and seminars are taught in a focused and effective manner.
- (2) Courses in the liberal arts support the attainment of a broad academic knowledge of the field of study, the attainment of better communication skills, a deeper understanding of ethics, and a greater sense of global literacy.
- (3) Research guidance helps the acquisition of the knowledge and experience necessary to conduct research through understanding of the literature and discussions with supervisors. Moreover, research guidance helps students to develop such skills as: the ability to communicate research; to problem-solve; and to foster researchers, or similar advanced professionals, 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 that was acquired up to master's program level not only through research guidance but also courses in the liberal arts. In addition, the curriculum is organized so as to realize the purpose set for science and engineering majors.
- (1) Research guidance helps students acquire the knowledge and experience necessary to conduct research through understanding of the literature and discussions with supervisors. Moreover, it helps students to develop such skills as: the ability to communicate research; to problem-solve; and to foster the ability of researchers, or similar advanced professionals, to become independent and active in the field, with an international perspective, both at home and abroad.
- (2) Courses in the liberal arts 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**

Under the educational research philosophy of the university, which is based on the meritocratic tradition; the university seeks, through a range of selection methods, those who match the following criteria:

- The master's degree program is based on the basic academic ability and wide range of liberal arts acquired I the bachelor's degree program. The aim is to acquire the necessary skills for those with the intent to discove and solve problems through research in their specialized field. The master's degree program seeks thos 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.

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; 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, a written examination, qualifications / results of certified tests, and interview. In the doctoral program, candidates will be selected through an examination of documents submitted, a written examination, and qualifications / results of certified tests. Candidates are further chosen on the basis of an oral examination of their master's thesis.

(Special selection for working people, foreign student entrance examination) The university seeks those who have acquired experience in research institutes or companies, who have a positive attitude toward learning, and/or have skills acquired abroad. In the master's program, students will be selected through an examination of documents submitted, a written examination, qualifications / results of certified tests, and interview. In the doctoral program, students will be selected through an examination of documents submitted, a written examination, qualifications / results of certified tests, and an oral examination of their master's thesis.