

## Graduate School of Science

### Diploma Policy

1. The master's program in the Graduate School of Science aims to train researchers with a high level of expertise, knowledge of ethics and the ability to contribute to society in their field of specialization. It also aims to create researchers who are highly professional and hold an international perspective. Such researchers will have attended courses for a specified period and have acquired the necessary credits for the graduate school and major to which they belong. Candidates who have passed a final examination on their master's degree thesis, or piece of specific research, will receive a master's degree (Master of Science) or a master's degree (Master of Philosophy).

A graduating student will acquire the following abilities:

- (1) Advanced expertise relating to specialist science fields.
  - (2) The ability to carry out research in specialist science fields.
  - (3) The ability to think logically and critically based on the high level of expertise, research skills and insight acquired in specialist science fields; 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, research skills and insight acquired.
  - (5) The ability to understand the importance of both basic and applied science; and to disseminate it to society.
2. The doctoral program aims to train researchers who have excellent creativity in research and development to play a central role in research and educational institutions with knowledge of ethics and the ability to contribute to society in their field of specialization. A doctoral degree (Doctor of Science) or a doctoral degree (Doctor of Philosophy) 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 required standard, passed a consequent examination, and an examination of general academic ability.

A graduating student will acquire the following abilities:

- (1) Highly specialized knowledge relating to the specialist fields of the major.
- (2) The ability to carry out original research independently in the specialist fields of the major.
- (3) The ability to discover, analyze and solve issues based on flexible thinking, deep insight and a highly sophisticated level of expertise about the research skills 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 the 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.
  - (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 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) Research Guidance helps students acquire the knowledge and experience necessary to conduct research through an understanding of the literature and discussions with supervisors. Moreover, Research Guidance helps students to develop such skills as conducting presentations of research and academic papers at domestic and foreign academic societies. In addition, students will be guided to increase their ability to express themselves effectively, to acquire a mastery of both research and development skills and problem-solving skills. Students will also be given guidance on becoming active as a researcher or highly skilled professional with an international perspective, either at home or 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. The curriculum is organized on the premise of achieving the purpose set for each major, through Research Guidance and Courses in the liberal arts.

(1) Research Guidance helps students acquire the knowledge and experience necessary to conduct research through an understanding of the literature and discussions with supervisors. Moreover, Research Guidance helps students to develop such skills as how to conduct presentations of research and academic papers at domestic and foreign academic societies. In addition, students will be guided to increase their ability to express themselves effectively, and to acquire a mastery of both research and development skills and problem-solving skills. Students will be given guidance on how to start becoming active as a researcher or highly skilled professional in their field of study, either at home or abroad.

(2) Courses in the liberal arts are available, which support the high degree of academic knowledge, ethics and practical ability necessary for students to carry out research and development as independent researchers or highly skilled professionals.

(3) Lectures are given by experts outside the field to enable differing academic perspectives to be applied to a wide range of future applications and developments. Students are also permitted to take courses in other majors and other graduate schools.

## 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:

1. The master's degree program is based on having the academic ability and knowledge of a 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 independently through research in their specialist field, or to aim to learn and study theory and apply it while taking into account various perspectives.
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 and those who are willing to conduct research which contributes to the betterment of society.
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 policies 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 they wish to enter; and those who

have the determination to conduct independent research. In the master's program, students will be selected through an examination of documents submitted, a written examination (specialist subject of each major, foreign language), qualifications held, and interview. In the doctoral program, candidates will be selected through an examination of documents submitted and a written examination (specialist subject of each major / foreign language). Candidates are further chosen on the basis of an oral examination of their master's thesis. Note that special selection for working people is only implemented for the doctoral program.

(Recommendation entrance examination)

For the master's program, 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. Candidates will be selected through an examination of documents submitted and interview.

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

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