

## Graduate School of Advanced Engineering Department of Biological Science and Technology

### Diploma Policy

1. The master's program "will enable students to go beyond the scope of the field of biological science and technology and conduct cross-sectional research and education across majors, provide the research skills and advanced academic knowledge necessary for work requiring diverse specialties in the workplace." A master's degree (Master of Engineering) is accredited and awarded to those who have acquired the necessary credits, had their master's thesis recognized as having reached the standard required and passed a consequent examination.

A graduating student will acquire the following abilities:

- (1) Advanced knowledge and diverse skills as well as high ethical standards necessary to perform work related to the Department of Biological Science and Technology.
- (2) Ability to contribute to society by conducting and leading independent research and development in the specialist field of biological science and technology.
- (3) The advanced level of expertise and ability to research, discover, analyze and solve problems based on flexible thinking in the field of biological science and technology.
- (4) The advanced level of expertise in conducting research, and knowledge of liberal arts necessary, to become an active member of the international research community in the field of biological science and technology.
- (5) The advanced level of expertise in research in the field of biological science and technology and the liberal arts; and the ability to independently evaluate science and technology from the viewpoint of the interdependence of human beings, society and the global environment.

2. The doctoral program "will enable students to go beyond the scope of the field of biological science and technology and conduct cross-sectional research and education across majors, provide the research skills and academic knowledge necessary for work requiring diverse specialties in the workplace." 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, 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) The highly sophisticated expertise as well as high ethical standards related to the field of biological science and technology.
- (2) Ability to contribute to society by conducting and leading independent research and development in the specialist field of biological science and technology.
- (3) The advanced level of expertise to research, discover, analyze and solve issues based on flexible thinking in the field of biological science and technology.
- (4) A highly sophisticated level of knowledge of the field of biological science and technology based on a cutting-edge level of expertise in research; and an international perspective, gained through the study of the liberal arts.

### Curriculum Policy

1. The master's program "will enable students to go beyond the scope of the field of biological science and technology and conduct cross-sectional research and education across majors, provide the research skills and advanced academic knowledge necessary for work requiring diverse specialties in the workplace." A master's degree (Master of Engineering) is accredited and awarded to those who have acquired the necessary credits, had their master's thesis recognized as having reached the standard required and passed a consequent examination.

- (1) Advanced expertise and diverse range of abilities necessary to carry out work relating and going beyond the scope of the field of biological science and technology is carried out in specialist lectures, specialist courses and experiments in a focused and effective manner.
  - (2) Courses in the liberal arts not only foster the purpose of attaining 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 understanding the domestic and international literature; and discussions with supervisors. Students will acquire the diverse expertise and research skills to analyze, evaluate and communicate research; necessary for the workplace. Thereby, helping students become members of not only the domestic but also the international research community.
2. The doctoral program “will enable students to go beyond the scope of the field of biological science and technology and conduct cross-sectional research and education across majors, provide the research skills and academic knowledge necessary for work requiring diverse specialties in the workplace.” 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, had their doctoral dissertation recognized as having reached the standard required, passed a consequent examination, and an examination of general academic ability.
- (1) Research Guidance helps students acquire the knowledge and experience necessary to conduct research through understanding the domestic and international literature; and discussions with supervisors. Students will acquire the advanced expertise and research skills in biological science and technology to analyze, evaluate and communicate research; necessary for the workplace. Thereby, helping students become members of not only the domestic but also the international research community.
  - (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 as well as high ethical standards.

## Admissions Policy

“To contribute to the creation of a better society not only through education and research in biotechnology and related fields, but also to generate personnel able to contribute to solving society’s problems from the standpoint of basic biology”

1. The master's degree 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, solve problems and then to go beyond the scope of the field of biological science and technology. The master’s degree program seeks those who are willing to work in collaboration with a diverse range of people.
2. The doctoral program is based on the expertise in biological science and technology gained 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 use the specialist knowledge they have gained in the Department of Biological Science and Technology for the betterment of society from an international perspective.

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 the professional knowledge, English ability, thinking skills and communication skills commensurate with the characteristics of the department of biological science and technology; 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, written examinations and qualifications / results of officially recognized qualification and through interview. In the doctoral program, candidates will be selected through an examination of documents submitted and an oral examination of their master's thesis / research plans.

(Recommendation entrance examination)

In the master's program the university seeks those who have the professional knowledge, English ability, thinking, communication skills beyond the scope of biological and science and technology; 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 skills acquired abroad. In the master's program, candidates will be selected through an examination of documents submitted, written examinations and qualifications / results of officially recognized qualification and interview. In the doctoral program, candidates will be selected through an examination of documents submitted, written examinations, and an oral examination of their master's thesis / research plans.