

Graduate School of Advanced Engineering

Diploma Policy

1. The Graduate School of Advanced Engineering master's program “enables students to conduct cross-sectional research and education across majors, provide the research skills and academic knowledge necessary for work requiring diverse specialties; and develop researchers who can play creative and leadership roles in their workplace.” The Graduate School of Advanced Engineering master's program accredits and awards a master's degree (Master of Engineering) to those who have attended courses in the program for a specified period, who have the requisite knowledge and skills determined by their major, and have passed the master's thesis examination and final exam.

A graduating student will acquire the following abilities:

- (1) Ability to effectively acquire the high level of expertise and skills required for controlling business operations.
- (2) The ability to carry out and lead independent research and development in the specialist fields of each major.
- (3) Acquire the advanced level of expertise and ability to research, discover, analyze and solve problems based on flexible thinking.
- (4) Acquire the advanced level of expertise in conducting research, and knowledge of liberal arts necessary, to become an active member of the international research community.
- (5) Acquire the advanced level of expertise in research 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 aims for students “to acquire the research skills and rich academic knowledge necessary to engage in highly specialist work as a researcher; and to foster people who can conduct research activities independently”. The award of 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 specialist field of the major to which you belong.
- (2) The ability to carry out and lead independent research and development in the specialist field of the major to which you belong.
- (3) Acquire the advanced level of expertise to research, discover, analyze and solve issues based on flexible thinking.
- (4) A highly sophisticated level of knowledge of the field 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 curriculum is based on specialist courses, courses in the liberal arts, and research guidance, in undergraduate study. The program “enables students to conduct interdisciplinary research; and provide the research skills and academic knowledge necessary for controlling a diverse array of business operations; in order to develop researchers who can hold creative and leadership roles in their workplace.”
 - (1) To effectively acquire the high level of expertise and diverse skills required for business operations, specialist courses are mainly taught intensively with a variety of special lectures, experiments and seminars are taught in a focused and effective manner.
 - (2) Courses in the liberal arts foster the attainment: of a broad academic knowledge of the field of study, 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 Graduate School of Advanced Engineering doctoral program “will conduct interdisciplinary research and education across majors, acquire the research skills and academic knowledge necessary for work requiring specialties, and develop researchers who can play creative and leadership roles in their workplace.” Namely, research guidance and courses in the liberal arts, which are based on the research gained in master’s study.
- (1) Research guidance helps students acquire the knowledge and experience necessary to conduct research through an understanding of the domestic and international literature and discussions with supervisors. Students will acquire the high level of research skills to analyze, evaluate and communicate research, necessary for the workplace. Thereby, helping students become independently active 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.

Admissions Policy

The education and research philosophy is realized by “creating interdisciplinary science and technology based on new perspectives that are not captured by traditional thinking, in the field of advanced, specialist and integrated academic fields”.

1. The master's program is based on the basic academic skills acquired in the bachelor's program and a wide range of liberal arts, the ability necessary for research motivated persons, researchers or advanced professionals to find and solve their own problems beyond the boundaries of the field of study. People who are aiming to acquire knowledge and who are willing to conduct research in cooperation 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 admissions 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, a written examination, qualifications held, and interview. In the doctoral program, candidates will be selected through an examination of documents submitted, a written examination. Candidates are further chosen on the basis of an oral examination of their master's thesis.

(Recommendation entrance examination)

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

(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, students will be selected through an examination of documents submitted, written examination and qualifications / results of officially recognized qualification and through interview. In the doctoral program, students will be selected through an examination of documents submitted, written examinations, and an oral examination of their master's thesis / research plans.