

Graduate School of Science and Technology Department of Industrial and Systems Engineering

Diploma Policy

1. The master's program aims to train researchers to conduct research in fields related to Management Systems Engineering; and to do so with a high level of expertise, sense of ethics and the ability to contribute to society. It also aims to create researchers who are highly professional and hold an international perspective. Successful candidates will have attended courses in the Department of Industrial and Systems Engineering for a specified period and have acquired the necessary credits. Those who have passed a final examination on their master's degree thesis will receive a master's degree (Master of Engineering).

A graduating student will acquire the following abilities:

- (1) Advanced expertise relating to the specialist field of Industrial Administration.
- (2) The ability to carry out research in the specialist fields contained within the Department of Industrial and Systems Engineering.
- (3) The ability to think logically and critically based on the high level of expertise, research skills and insight acquired in the Department of Industrial and Systems Engineering; and to discover, analyze and solve problems.
- (4) The ability to be active with an international perspective based on the high level of specialist knowledge, research skills and knowledge of liberal arts acquired in the Technology, Department of Industrial and Systems Engineering.

2. The doctoral program in the Department of Industrial and Systems Engineering aims to train researchers with knowledge of ethics and the ability to contribute to society in their field of specialization; 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 Graduate School of Science and Technology, Department of Industrial and Systems Engineering, 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 according to the Department of Industrial and Systems Engineering.
- (2) The ability to conduct independent research activities as a researcher in the Department of Industrial and Systems Engineering.
- (3) The ability to discover, analyze and solve issues based on flexible thinking, deep insight and the highly sophisticated level of expertise and ability to conduct research acquired in the Department of Industrial and Systems Engineering.
- (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 Department of Industrial and Systems Engineering.

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 the Department of Industrial and Systems Engineering, 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 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 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 in the Department of Industrial and Systems Engineering is organized so as to realize a cutting-edge level of knowledge of the field of Management Systems Engineering.
- (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, ethics 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:

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 and solve problems through research in their specialist field. 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 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 the 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, qualifications / results of certified tests, and interview. In the doctoral program, candidates will be selected through an examination of documents submitted, written examinations. 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, 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, qualifications / results of certified tests, 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.