ACADEMIC GUIDE

FY2022

Educational Policy of Graduate School of Engineering and Science

1. Purposes of Education and Research

【Master's Program】

The aim of the Master's Program is to foster engineers and researchers, who have the knowledge and awareness of experts in their field of specialization, be able to respond immediately to new aspects of society and further contribute to the construction of a sustainable society and community. Such human resources are required to have the ability to identify problems and solve them quantitatively, backed by a high level of specialized knowledge, as well as the ability to cope with a global society. In order to cultivate these abilities, the Master's Program provides education and research that combines a wide range of internationally accepted insights with flexible thinking.

＜Electrical Engineering and Computer Science Course＞

Today, it is impossible to build a sustainable, advanced, and prosperous social system without electrical technologies for energy, environment, space, nano-properties, devices, information, and communication. In order to meet the demands of society for these electrical, electronic, information, and communication technologies, which are also the foundations of industrial technology, the major's main educational objectives are to (1) acquire advanced specialized knowledge and cultivate the ability to apply it, (2) develop and cultivate the ability to find and solve problems, (3) cultivate presentation and communication skills, and (4) cultivate a sense of cooperation and ethics.

In order to achieve the above goals, the Electrical Engineering and Computer Science Course covers a wide range of academic and technical fields in the electrical and information sciences and is equipped to deal with most of the issues and problems in these fields. The course is also ready to respond immediately to novel and original research themes that are expected to develop in the future. Specifically, the course is united to form majors, realizing graduate education that transcends faculties and departments. Furthermore, education and research guidance are divided into eight specialized fields: (1) Materials and Devices, (2) Circuits and Control, (3) Power and Energy, (4) Communication, (5) Information, (6) Informational Science, (7) Robotics and Mechatronics, and (8) Biotechnology and Biological Systems.

＜Materials Science and Engineering Course＞

The objective of the Materials Science and Engineering Course is to train engineers and researchers who can contribute to the realization of a sustainable society with advanced knowledge of materials and substances, the ability to find and solve problems in order to play an active role in materials manufacturing and development, and a wide range of internationally accepted insights.

＜Applied Chemistry Course＞

Development of science and technology has been brought about not only prosperity of material civilization but also serious environmental problems such as global warming, environmental pollutions. In

chemical industry, materials of high function and environment-friendly in the processes of production, usage, disposal, technology enabling the removal of contaminants and the recovery of rare resource have been required to be developed. In addition, the development of technology for the production and usage of renewable energy alternative to fossil fuel has become significant. The Applied Chemistry Course aims to foster researchers and engineers having not only extensive chemistry knowledge and skills, but also a broad culture and flexible and appropriate problem-solving skill, and to provide them to the international society as deserving human resources.

＜Mechanical Engineering Course＞

Mechanical Engineering is a field of engineering, which is the foundation for building a society that can maintain human life and the global environment surrounding it forever, through “manufacturing.” The Mechanical Engineering Course has set a goal, which is to develop the ability to make a judgment in relation to the social needs regarding the environment, safety, security, and convenience to realize such a society, by flexibly applying a variety of specialized knowledge as well as based on complex examinations drawn by seeing things from a global perspective and considering various effects. Furthermore, the Course also aims that its students will acquire the determination to open up new fields and develop practical abilities.

The Mechanical Engineering Course offers a research guidance course divided into nine sections. In each section, a wide range of research education is practiced, ranging from research concerning micro technology in fundamental field to the field of macro technology regarding complex applied technology and system technology. In addition, research and education in the department covers a wide range of fields, from basic mechanical engineering, such as materials and structural mechanics, fluids, heat and energy to robotics, automobiles, new energy systems, and welfare engineering, as well as system technologies related to complex manufacturing, such as biotechnology, medical engineering, and design engineering. Through this research, the major goal is to nurture engineers who can not only learn specialized knowledge but also contribute to society from a global perspective, who are aware of engineering ethics, can set their own problems, and can practice engineering to solve them. The course also have an educational program that allows students to constantly challenge new things through the problem-solving process of specific themes.

＜Systems Engineering and Science Course＞

Problems in modern society do not fall only into a single specialized field. Under the prospects for the future, methods to solve these problems are formed comprehensively by linking them with various technologies and scientific elements, whilst placing harmony to limit the environmental problems and resource problems, and with traditional culture and values at its base.

The System Engineering and Science Course aims to train researchers and engineers with the ability to identify problems across multiple disciplines and to solve them in a comprehensive manner, based on their background knowledge and systems thinking, which they have acquired through (1) compulsory courses, (2) research guidance courses, (3) elective courses, and (4) common courses.

＜Global Course of Engineering and Science＞

Globalization of society and national economies has increased the demand for educating engineers who use their knowledge for the benefits of both their local region and global society as a whole.

The Global Course of Engineering and Science is a Master’ s Degree course in Engineering and Science with English language as the teaching and learning medium. It offers cross‐departmental education in a multinational environment.

This course is the embodiment of SIT university’s educational mission in a global perspective. The mission of the course is to nurture engineers and scientists who learn from the world and contribute to global sustainability.

The educational aim of the course is to develop the next generation of engineers and scientists who have specialized knowledge and practical skills in the field of their supervisors’ expertise and who can communicate in English with professionals around the world to resolve engineering and socio‐economic problems.

To achieve this educational aim, our program offers specialized subjects and research guidance in major fields of engineering including Electrical Engineering, Electronic and Information Engineering, Materials Engineering, Applied Chemistry, as well common subjects and sub‐major subjects including Business Development Specialty.

＜Civil Engineering Course＞

The Civil Engineering Course aims to develop human resources who can contribute to the construction of a sustainable society by equipping them with knowledge and problem-solving skills related to technologies and systems for the construction and management of social infrastructures essential to community's lives, as well as technologies and systems for disaster prevention and environmental issues.

＜Architecture and Architectural Engineering Course＞

The Architecture and Architectural Engineering Course aims to contribute to the development of human culture and the realization of a sustainable society through the creation of rich architectural and urban spaces, and to nurture human resources who are capable of working in a modern international society where major changes in the environment and diverse values coexist, with interdisciplinary perspectives ranging from natural sciences to humanities and social sciences, and with solutions based on architectural science. The purpose of this course is to nurture human resources who can play an active role in modern international society with solutions based on architectural science, while maintaining an interdisciplinary perspective that spans natural science, humanities and social science.

【Doctor’s Program】

The Doctor’s Program aims to increase researcher’s potential and targets Master’s Program graduates and engineers actively battling current issues. The purpose of the Doctor’s Program is to foster engineers and researchers who hold abundant academic knowledge. The field of one’s expertise is deepened from an interdisciplinary point of view, and a comprehensive outlook that covers both soft and hard engineering aims to the acquisition of skills that make it possible to create harmony in a system as a whole.

Furthermore, in order to foster PhD holders able to act in the manufacturing industry the Doctor's Program cultivates sigma type experts, who possess and are able to combine versatile engineering skills, technology management skills and metanational abilities.

The education and research of the Doctor's Program, whose essence lies in the training of experts as mentioned above, also holds the essential role of research promotion, which is the mission of the university.

＜Regional Environment Systems Course＞

In limited areas such as urban cities, the social and cultural activities of human beings are likely to negatively affect the living environment in the area. For sustainable community development, harmony between the activation of community activities and conservation of the living environment is inevitable.

In addition, to realize this, there is a necessity to work on the issues spreading across a range of fields including electrical engineering and computer science, materials science, chemistry, mechanical engineering, architecture and civil engineering.

Doctoral candidates in the Regional Environment System Course will deepen research in their own specialized field. At the same time, it is also aimed that they will contribute to forming the foundation of a better society, culture and life in the regional environment by having an insight into the influence and effect of technology on society and nature, and through exchanging information among researchers from different specialized fields. The educational goal of this course is to nurture talents who have a broad view regarding the regional environment and can achieve this aim, by making use of their highly specialized knowledge.

＜Functional Control Systems Course＞

Japan in the 20th century placed an emphasis on efficiency and convenience, and strived towards manufacturing things, seeking to increase profitability. As a result, this approach put Japan in a situation where it faced contradictions such as the destruction of environment. Currently, Japan possesses technologies, which lead the world in such fields as automobiles, robotics, electronics and telecommunications, whilst resolving such contradictions. These technologies are becoming increasingly more complex. In order to contribute to the world as a leader of science and technology in the global society going forward, Japan will be required to exercise high-level design capabilities and technology management skills, which will enable Japan to grasp the overall picture of increasingly complex technologies and promote harmony within the overall system, in addition to the ability to deeply analyze and comprehend objects.

For example, the nuclear power plant accident that occurred immediately after the Great East Japan Earthquake reaffirmed the importance of systematization technology regarding the management of technology in society and the use of technology in society, including implementation and operation, and the time has come to reconsider practical education again. In addition, in 2015, the achievement of 17 goals for sustainable development (SDGs) was adopted by all UN member states. This also means that there is a need to nurture researchers and engineers who have global values and can be active internationally.

Based on such a background, the Functional Control Systems Course aims to provide education and

to conduct research to nurture outstanding researchers and engineers who have global values and the ability to fully grasp the truth of science and make use of it in practical education. This course consists of a number of different education and research fields, such as communication function control, functional device control, system control, and biosystems and biomolecule control, and operates interdisciplinary education and research. Taking this approach ensures that the course is not specialized in education and research being exclusively relevant to the areas of its academic staff's expertise. The course also aims to nurture researchers and engineers with basic skills for technology management and proficiency in English for engineers as well as shared values and ethics, while the course as a whole is aware of the relevance based on the diversity in the course and actively promotes collaboration with each other.

2. Curriculum Policy

【Master's Program】

In the Master's Program of the Graduate School of Engineering and Science, the curriculum is organized based on the following policies in order to train engineers as stated in the Diploma Policy.
In order to foster engineers, the curriculum is organized based on the following policies.

□Specialized courses are arranged for the acquisition of advanced and broad specialized knowledge. In addition, specialized courses are offered in English to develop basic communication skills in specialized fields that can be applied in a global society. Also, it is possible to obtain the credits for the specialized subjects required for a degree only in English.

□Students are required to take the "Research Guidance" course by engaging in specialized research under the research guidance of a faculty supervisor. In the "Research Guidance" course, students formulate a research plan, research related papers, discuss with their supervisors, give presentations at domestic and international conferences, and publish academic papers to develop engineers and researchers who can play an active role in global society.

□In order to develop an awareness of the diversity of the world and society, as well as a sense of ethics and basic communication skills, common subjects across majors will be established.

□The Graduate School of Engineering and Science has established the Technology Management Sub-Major Program, which consists of a portion of the Common Courses, with the aim of fostering human resources with sigma-type integrated capabilities that combine multifaceted engineering, technology management, and metanational capabilities. The Graduate School of Engineering and Science encourages students to take this program.

＜Electrical Engineering and Computer Science Course＞

Based on the educational goal of this university (philosophy for the foundation of the school), “Nurturing engineers who learn from society and contribute to society,” this course has set its educational goal as “Nurturing engineers who have comprehensive problem-solving skills and contribute to the world.” For the systematic curriculum and the PDCA in the organization to achieve this educational goal, this course implements a systematic and organizational active learning reform for the duration of two years, visualization of learning outcomes and a guarantee of study hours by the PDCA cycle, strengthening of the promotion system for educational reform, and guaranteed learning through collaboration between teaching staff, administrative staff and students. The talents the Electrical Engineering and Computer Science Course seeks are engineers who will be involved in electrical-, electronic-, information-, communications- and design-related research and development as well as production. The ideal candidates to be trained are engineers who will engage in the construction of sophisticated electrical-, electronic-, information- and communications-systems. In order to achieve the goal, the course is divided into eight main areas - namely, (1) Materials and Devices, (2) Circuit and Control, (3) Power and Energy, (4) Communication, (5) Information, (6) Informational Science, (7) Robotics and Mechatronics, and (8) Bioengineering - and course models for each area are provided. The course models will enable students to prepare and conduct their research by obtaining 30 units

required for the completion of the course by taking subjects and research guidance (exercises and experiments).

The academic achievements of the students aiming at the educational goal are evaluated as follows; Achievements in 1) advanced specialized knowledge and application skills are evaluated based on the reports and tests. 2) development of skills to find and solve problems, 3)skills for presentation and communication, and 4)development of cooperative personality and sense of ethics are evaluated mainly based on the results due to the research guidance(exercises and experiments). In addition, in order to evaluate total ability, candidates of the master's degree are required that they have presented more than one paper at an academic conference.

＜Materials Science and Engineering Course＞

The curriculum in the Materials Science and Engineering Course is positioned as an extension of the curriculum in the undergraduate education and has been specifically created to enable students on this course to acquire knowledge and experiences regarding more advanced materials science and engineering. Students in the Materials Science and Engineering Course will be able to deepen the knowledge relevant to their own research area by selecting and taking lectures, which explain basic perspectives regarding the physics and chemistry of materials, and theories etc., related to the application of materials science and engineering, as well as the ones based mainly on seminars and presentations. For the research for a Master's or Doctoral thesis, the students will be able to acquire experiences and obtain a wide view as engineers and researchers in engineering by inventing and implementing their research as well as by presenting research results.

＜Applied Chemistry Course＞

In order to deepen students' understanding of the chemical field in which they specialize, and to cultivate their ability to understand the fundamentals and advanced technologies in a wide range of related chemical fields, we offer lecture courses (including lectures in English) based on the following policies.

(1) Lecture courses are offered in a wide range of fields, and the curriculum is designed to enable students to acquire knowledge in interdisciplinary fields such as life science and chemical engineering, in addition to core expertise in organic chemistry, inorganic chemistry, physical chemistry, and analytical chemistry, by acquiring 18 credits or more from these lecture courses.

(2) Research guidance courses such as special exercises and special experiments are provided to cultivate practical problem finding and solving skills. In the second half of the program, after earning credits, students can concentrate on developing their specialized skills and complete their master's thesis.

(3) Students are instructed to actively disseminate the results of their research (conference presentations and paper presentations).

＜Mechanical Engineering Course＞

The Mechanical Engineering Course provides education in line with the following policy:

Students will acquire:

(1) Skills to accurately grasp social needs and to identify and establish problems.
(2) Skills, which enable them to precisely use specialized knowledge in solving problems.
(3) An attitude towards considering things from a variety of angles and to examine them in a multifaceted way.
(4) An attitude and communication skills to solve problems from a global perspective
(5) A willingness to take on challenges in new fields, a rich culture, and a high sense of ethics.
(6) An attitude of problem solving with an awareness of a sustainable society.
(7) Will continue to review and improve so that all students in the course can receive high-quality education based on the above.

＜Systems Engineering and Science Course＞

In order to achieve the educational and research objectives, the following education and research will be conducted.

(1) By completing the compulsary courses, students will learn through synthesis-led, cross-disciplinary education and research. By this, students will acquire "systems thinking" for comprehensive problem solving, "systems methods" for designing functions to achieve objectives and "systems management" for integrating people, knowledge and technology for problem solving. In addition, this course is accompanied by special exercises based on mixed-field projects. Through these exercises, students acquire communication and leadership skills.
(2) Students will determine research guidance, which will be the core of their specialized knowledge, from the five areas of machinery and control, electronics and information, society and the environment, life science, and mathematical science, and will acquire the skills to solve specialized problems in the area that they have selected.
(3) Students will acquire the skills to clarify the theme set by themselves and to draw comprehensive solutions using the works for research guidance subjects, while they will also acquire skills to systematize the knowledge gained through writing their Master’s thesis.
(4) The course allows students to take elective courses to acquire the knowledge they need in all areas. As a result, students will gain background knowledge that transcends disciplines.
(5) Students will acquire communication skills through taking common subjects, and at the same time, they will also acquire human competence, which is necessary to solve problems by bringing individual science and technologies together as well as acquiring ethics in engineering practice as engineers who will contribute to society.

＜Global Course of Engineering and Science＞

The Global Course of Engineering and Science has adopted an education and research curriculum with the following objectives to help students acquire the knowledge, skills, and attitudes embodied in the Program’s graduation criteria.

Students shall:

(1) Acquire specialized knowledge in their field of expertise and basic cross-disciplinary knowledge through the required courses.
(2) Acquire English communication and technical skills for speaking and writing through courses taught in English.

(3) Be provided with guidance for researching the specialized knowledge needed to discover and elucidate problems and derive solutions.
(4) Experience the importance of diversity and adaptability in intercultural environments through international exchange, study abroad or internships.
(5) Acquire high ethical standards by working with experienced professional researchers.
(6) Acquire the ability to formulate their research results systematically and logically in English by writing science and engineering articles as well as a master's thesis.
(7) Acquire the ability to both communicate information and contribute to society by participating in academic activities such as presentations at academic conferences.

＜Civil Engineering Course＞

In the Civil Engineering Course, the curriculum is structured with the goal of enabling students to acquire the following abilities in accordance with the Diploma Policy and the objectives of education and research.

(1) Be able to deal with integrated systems consisting of structures, nature, and society, which are the subject of social infrastructure studies, based on natural and social sciences.
(2) Based on a correct understanding of the relationship between people and the environment, students will be able to accurately analyze various environmental factors surrounding society and contribute to the creation of a sustainable society and the realization of new environmental systems.
(3) Systematically acquire specialized knowledge in the field of social infrastructure and apply it to problem solving.
(4) Identify, organize, and analyze issues in the field of social infrastructure, and present rational solutions.
(5) Communicate their own opinions logically to others and engage in advanced discussions on matters related to social infrastructure.
(6) Be able to communicate in a basic manner in the field of social infrastructure in a global society.
(7) Be able to consider the impact of social infrastructure on society and the environment, understand the responsibilities and roles of engineers, and comply with engineering ethics.

＜Architecture and Architectural Engineering Course＞

In line with the diploma policy and educational and research objectives, the curriculum of the Architecture and Architectural Engineering Course has been designed with the aim of enabling students to acquire the following abilities

A) To be able to deal with the integrated system of architecture, city, nature, and society, which is the subject of architectural studies, based on natural and social sciences.

B) Acquire knowledge of the history, climate, customs, art, and international affairs that form the background of cities, towns, and architecture, and use this knowledge to create a rich human culture that will last into the future.

C) Based on a correct understanding of the relationship between people and the environment, accurately analyze the various environmental factors surrounding cities and architecture, and contribute to the creation of a sustainable society and the realization of new cities and architecture.

D) Systematically acquire specialized knowledge in their field and apply it to problem solving.

E) Discover, organize, and analyze conditions and issues, and present rational solutions in order to realize cities, towns, and architecture that satisfy people and society.

F)To be able to apply basic mathematical knowledge of building technology and to grasp it from a scientific aspect at a high level.

G) Communicate their own opinions logically to others through descriptions, discussions, and presentations, and also be able to engage in advanced discussions.

H) Through the practice of PBL, learn how to understand others, how to tackle issues in collaboration with others, and how to work with people from different cultures and fields of expertise, so that they can contribute to society in response to globalization.

I) To be able to consider the impact of architecture on people, society, and the environment, to understand the responsibilities and roles involved in architecture, and to comply with engineering ethics.

Furthermore, in each class subject, rather than one-way transmission of knowledge, students are encouraged to deepen their professional knowledge and skills through intensive discussions among themselves and with faculty members. In addition, in each class subject, evaluation methods and standards are strictly set, and academic achievements appropriate to a master's degree are evaluated from multiple perspectives to achieve the prescribed academic and educational achievement goals.

【Doctor's Program】

In the Doctoral Program of the Graduate School of Engineering and Science, the curriculum is organized based on the following policies to cultivate researchers and engineers as stated in the Diploma Policy, so that students can study their expertise from a comprehensive perspective in terms of both software and hardware.

- "Specialized subjects" will be assigned to train advanced knowledge and experimental skills necessary for writing a doctoral dissertation.
- In "Research Guidance," under the research guidance of a faculty advisor, students formulate a research plan, research related papers, engage in discussions with the faculty advisor, make presentations at domestic and international conferences, and publish academic papers, thereby developing researchers and engineers who can play an active role in global society.
- In order to develop future autonomous researchers and educators, "Pre-FD subjects" are arranged.
- In addition, we encourage students to take the "Technology Management Sub-Major Program" as a part of the common subjects in the Master's Course in order to develop human resources with sigma-type integrated capabilities that combine multifaceted engineering capabilities, technology management capabilities, and metanational capabilities.

＜Regional Environment Systems Course＞

The curriculum offered in the Regional Environment Systems Course (this course) is composed with the aim of nurturing talents who will realize harmony between the activation of community activities and

conservation of the living environment through a range of fields including electrical engineering and computer science, materials science, chemistry, mechanical engineering, architecture and civil engineering. Therefore, research guidance and subjects covering many different fields have been prepared. In this way, the foundation of the course is based on the idea that curriculums in each area within the wide range of coverage will work to deepen the research in specialized fields. However, the course also encourages and leads doctoral candidates towards being involved in exchanges between different fields and the fusion boundary region, including the relationship between technology and society, nature and the environment, and provide opportunities to acquire the knowledge, which will enable them to contribute to society, culture, sophistication of life, purification, normalization, as well as the improvement of reliability and safety.

Furthermore, the basic policy of the curriculum of this course is: to enable the doctoral candidates to not only accumulate specialized knowledge but also to enhance the skills to utilize such knowledge; to enable the candidates to acquire a high degree of specialized knowledge and skills as well as a wide range of knowledge and insights, taking into account the fact that this course is for the doctoral candidates in the Graduate School of Engineering and Science and that its purpose is for them to gain the doctoral degree; to become a place for learning in which the candidates will enhance their communication skills and acquire skills to appropriately present their research outcomes.

＜Functional Control Systems Course＞

The Functional Control Systems Course aims to nurture researchers and professionals with advanced expertise who have excellent research promotion and research and development skills with rich creativity in the fields of communication function control, functional device control, system control, and life function control, and who can solve various global problems for the realization of a sustainable society in cooperation with researchers and engineers around the world. The purpose is to train researchers and highly-skilled professionals who have a high degree of specialization that can solve various problems in the world for the realization of a sustainable society.

The curriculum is organized based on the following policies so that students can develop their expertise from a comprehensive perspective in both software and hardware.

- In order to develop the advanced knowledge and experimental skills necessary to write a doctoral dissertation in the field of functional control systems, "specialized subjects" are arranged.
- In the "Research Guidance" of the Functional Control Systems field, under the research guidance of a faculty advisor, students will develop researchers and engineers who can play an active role in global society through the formulation of a research plan, research on research-related papers, discussions with the faculty advisor, presentations at domestic and international conferences, and publication of academic papers.
- In order to develop future autonomous researchers and educators, "Pre-FD subjects" are arranged.
- In addition, we encourage students to take the "Technology Management Sub-Major Program" as a part of the common subjects in the Master's Course in order to develop human resources with sigma-type integrated capabilities that combine multifaceted engineering capabilities, technology management capabilities, and metanational capabilities.

3. Diploma Policy

【Master's Program】

The purpose of the Master's Program of the Graduate School of Engineering and Science is to train engineers and researchers who can solve various global problems for the realization of a sustainable society in collaboration with engineers and researchers around the world.

Based on the above objectives, the Graduate School awards the degree of Master of Engineering (Engineering, Systems Science and Engineering, Science and Engineering, or Architecture) to those who have satisfied the requirements for completion set forth by the Graduate School and have been recognized as having the knowledge, abilities, and qualities described below based on their academic performance and the results of the thesis examination.

- Advanced and broad expertise in science and engineering.
- Flexible thinking and the ability to solve quantitative problems.
- Communication skills to cope with global society.
- Awareness of the diversity of the world and society, and high ethical standards.

In addition, students who have completed the lecture courses of the Technology Management Sub-Major Program and obtained the required credits will be awarded the Technology Management Sub-Major Program Certificate.

＜Electrical Engineering and Computer Science Course＞

This course aims to nurture talents who possess a series of sophisticated skills including utilizing specialized knowledge and the skills they have acquired, identifying the root of problems facing them, finding precise solutions, and an ability to achieve concrete realizations. Thus, the course can respond to the needs from an increasingly ICT-influenced society and to the requirements of engineers and researchers who stand on a global perspective to consider the global environment, which is symbolized in the Green IT. In light of these aims, this course will require students to acquire the following skills:

- Advanced knowledge in their specialized field regarding electrical-, electronic-, information-, communications- and design-engineering extensively, and more in-depth specialized skills taking into account practical applications.
- Problem-finding and development skills to accurately draw out problems and issues, and problem-solving skills to find a specific method for solving problems and to evaluate its optimality as they conduct their research.
- Ability to face up to specific issues and problems in a real society, using the above mentioned knowledge, technology and the problem-finding and problem-solving skills.
- Skills to summarize research results in a comprehensive way based on flexible ideas and thinking, whilst possessing high ethical standards, actively working on issues with a high degree of difficulty.

Degree Assessment Criteria

The degree of Masters of Engineering will be conferred by fulfilling the following criteria.

- Candidates will have received research guidance, and will then write and submit their Master's thesis

in order to pass the assessment.

Criteria for the judgement of Master's thesis are as follows:

"The submitted Master's thesis includes information confirming that the candidate has presented more than one paper at an academic conference*, or the thesis should include an equivalent result.**"

* This includes a presentation at an annual meeting or a seminar of an academic association, presentation at an international conference, publication of an article or a letter in an academic journal, etc.

** Results other than a presentation at an academic conference such as applying for and obtaining a patent, or a result equivalent to a presentation or publication at an academic association or in an academic journal as described above.

＜Materials Science and Engineering Course＞

Materials have always been playing an important role in human society. Going forward, the importance of materials in the social infrastructure technology continues to increase. In addition, along with the recent development of the advanced science field, the field of materials science and engineering is also becoming diversified and how we further enhance the high functionality of materials without creating any environmental load is considered a major issue. Materials Science and Engineering Course aims to nurture engineers and researchers who have the abilities and skills to grasp the essence of problems by responding to the needs of society and social backgrounds, to invent in research methods for problem-solving, and to utilize specialized knowledge for practical development. Setting up these educational and human resourced development goals, this course will require students to acquire the following knowledge and skills.

Students will:

- Learn the advanced knowledge and skills of materials science and engineering, and acquire skills to appropriately select and identify problems based on an attitude to explore issues within a wide area.
- Systematically understand the advanced level of materials science and engineering, and enhance their experiment skills regarding the research methods for measuring and processing as an ability to solve problems and issues.
- Acquire the skills to find methods of solving social problems based on the advanced views of materials science and engineering as well as utilizing a range of insights and specialized knowledge in the actual society.
- Understand the relationship between advanced technologies, society and the environment, and also to acquire ethical ideas including the overall contribution of materials science and engineering and flexible thinking.

Degree Assessment Criteria

Based on the educational philosophy and human resource development goals of the Materials Science and Engineering Course, the degree of Master in Engineering will be conferred on candidates who have fulfilled the following criteria.

・The student must receive research guidance, prepare and submit a master's thesis, and pass the

examination.

Criteria for the judgement of Master's thesis are as follows:

(1) Students have put all of their outcomes gained through the research guidance together to write a Master's thesis, which sufficiently meets the standard of the Master's degree in Engineering.

(2) Students have disseminated the contents and achievement of their Master's thesis to society by presenting it more than once through academic activities societies such as at academic societies and associations.

＜Applied Chemistry Course＞

The Applied Chemistry Course's research activity covers the core discipline of analytical, organic, inorganic, and physical chemistry, as well as the interdisciplinary of biological science and chemical engineering. Through classes, seminar and laboratory work, the course fosters students to acquire a deep understanding of knowledge and skills in the major chemistry field and a broad understanding of basic knowledge and advanced technology in the relevant chemistry field as well. A candidate of master degree as chemistry major is required to acquire the following abilities.

1. A planning skill to accomplish a given project based on the precise understanding of the project and collected necessary information.
2. Skills to conduct experiments along with a research plan and to interpret obtained results properly.
3. Skills to present and discuss his or her research results in chemistry conferences and as technical papers, and to complete his or her master thesis.
4. A Japanese skill to explain the significance of his or her project to other people appropriately, and a basic English skill to send and receive information precisely.

Degree Assessment Criteria

A Master's degree (Engineering) will be awarded to those who meet the following criteria.

1. Conduct research under the guidance of your supervisor, prepare a master's thesis, and submit it to the chief and assistant examiners. In addition, a score of 60% or more is obtained from the chief examiner and the assistant examiner.
2. Present an oral presentation on the master's thesis and obtain a score of 60% or more from the chief examiner and the assistant examiners.

＜Mechanical Engineering Course＞

In the Mechanical Engineering Course, our major goal is to nurture engineers who can learn not only the specialized knowledge through education in specialized subjects and research guidance, but also engineers who can set their own problems with an awareness of engineering ethics and practice engineering to solve them, and engineers who can contribute to society from a global perspective. In addition, we have an educational program that allows students to constantly challenge new things through the process of solving problems on specific themes.

In order to achieve the goal, the requirements of completion are determined specifically as follows:

・ Specialized knowledge and understanding

Students must have advanced and wide-ranging specialized knowledge in engineering and science, and must have earned the credits specified in the study guide.

・ Problem solver and problem-solving skills

The student must have the insight and flexible thinking ability to set up problems accurately when conducting research, and be recognized as having the quantitative and logical thinking ability to solve problems. In addition, the student must be able to quantitatively evaluate the degree of achievement in problem solving.

・ Motivation and practical ability

It is recognized that the applicant has a spirit of challenge to actively seek solutions to difficult problems in the course of his/her research, and has the ability to put such challenges into practice appropriately.

・ Communication skills

The student must have the communication skills to cope with the global society.

・ Sense of ethics

Recognized as having a high sense of ethics, recognizing the diversity of the world and society.

・ Comprehensive ability

The student should be able to accurately summarize highly original academic findings as research results.

Dissemination of research content, results, and works to society through presentations at academic conferences, associations, and other academic activities

Degree Assessment Criteria

Candidates will be conferred the degree of Master's in Engineering by fulfilling the following criteria:

Candidates will have to :

Complete 18 credits unit for subjects, as well as having received research guidance (12 units for Special exercises and Special experiments) from their supervisor.

Submit their Master's thesis and passed its assessment. The judgment of passing the assessment is based on the evaluation in terms of novelty, usefulness, universality, engineering point of argument, and the overall standard of quality, and 60 out of 100 points must be awarded.

＜Systems Engineering and Science Course＞

This course has set the goal that students will be able to establish the issues in modern society in a flexible manner based on science and technology, culture and values, society and the environment, and the ethics for engineering practice. As their basis, they will use the specialized knowledge, which will become their core knowledge, as well as the background knowledge beyond the disciplinary framework and system thinking. They will also acquire the skills to identify cross-disciplinary problems and comprehensive problem-solving skills. Shibaura Institute of Technology will confer the Master's degree in System Engineering to those who have registered with the Master's Program for the prescribed period, when the above-described objectives are judged to have been achieved through completing the compulsory subjects, research guidance, elective subjects and common subjects in the program as well

as completing a Master's thesis.

The requirements for completion to achieve the goals above are specifically determined as follows.

Students will acquire:

(1) System thought, theories and methods of system engineering, design theory, and system management skills required for resolving social problems by studying the compulsory subjects of this course.

(2) Communication and leadership skills through "special exercises," which is one of the compulsory subjects of this course necessary to realize a successful hybrid project involving different academic fields.

(3) The skills to solve specialized problems by deepening their specialized knowledge and experiences through studying the compulsory and elective subjects.

(4) Background knowledge beyond the disciplinary frameworks through studying technologies from other fields, and will have an ability to accurately utilize such background knowledge in society by combining it with the specialized knowledge, which forms the core of their research.

(5) Skills to clarify their research theme, which is set by themselves and to draw comprehensive solutions through the works for research guidance subjects, while also acquiring skills to systematize the knowledge gained through writing their Master's thesis.

(6) Communication skills through studying common subjects, and at the same time, will also acquire the human competence, which is necessary to solve problems by bringing individual sciences and technologies together. Ethics in engineering practice as engineers who will contribute to society.

Degree Assessment Criteria

A master's degree (System Engineering and Science) will be awarded to those who meet the following criteria. The master's degree examination criteria are set as follows.

・ After receiving research guidance, prepare and submit a master's thesis and pass the assessment.

The criteria for passing the master's thesis are [The submitted master's thesis must include at least one presentation at an academic conference*, or must be the result of cross-disciplinary research, or must include results equivalent** to a presentation at an academic conference]

*: Academic conference presentations include conference lectures, conventions, research meetings, symposiums, presentations at international conferences, articles in academic journals, and publication of papers/letters.

**: Results equivalent to conference presentations include patents and other results outside of the conference, as well as content equivalent to presentations and publication at the conference.

＜Global Course of Engineering and Science＞

The Global Course of Science and Engineering provides specialized education and research in major engineering fields. The degree of Master of Science in Engineering will be awarded to students who have acquired basic and advanced knowledge, practical skills in the supervisor's field of expertise, and enhanced professional communication skills in English. Graduates of this course will acquire the following knowledge, skills and attitudes:

(1) Specialized knowledge in the field of expertise and basic cross-disciplinary knowledge acquired

through required courses.
(2) International communication skills necessary for interacting with experts from other countries, utilizing both speaking and writing abilities learned from courses taught in English.
(3) A deep knowledge of their field of expertise and the ability to identify and elucidate problems and derive solutions in the course of research.
(4) An understanding of the importance of global diversity and adaptability by collaborating with experts from different backgrounds and nationalities during study abroad or internships.
(5) An understanding of the importance of maintaining high ethical standards.
(6) The ability to think logically and systematically utilizing the knowledge acquired through the preparation of a master's thesis.
(7) Aspirations to contribute to the world by publishing research results through academic activities such as presentations at academic conferences.

Degree Assessment Criteria

A Master's degree (Master of Science in Engineering) will be conferred to those who meet the following criteria:

・Earn 18 credits and/or more for courses taught in English (excluding research course credits).
・Complete either an overseas research project or an internship
・Receive research topic approval and submit a Master's thesis written in English.
・Pass the Master's thesis examination and the Master's defense presentation in English. The defense is passed by obtaining at least 60% of the total score from the chief and assistant examiners.

Criteria for the approval of the Master's thesis are as follows:

"The submitted Master's thesis shall include information confirming that the candidate has presented at least one paper at an academic conference*, completed cross-disciplinary research, or equivalent approved content.*"

* This includes lectures, presentations at annual meetings, seminars or symposia of academic associations or international conferences, the publication of articles or letters in academic journals or equivalent publication.

** A result equivalent to a presentation at an academic conference refers to a result produced other than at an academic conference such as obtaining a patent, or a result equivalent to a presentation or a publication at an academic association or an academic journal.

＜Civil Engineering Course＞

The Civil Engineering Course aims to train engineers and researchers with advanced and broad knowledge in the field of infrastructural engineering and the ability to think flexibly, and who can solve various problems related to infrastructural engineering and the environment in order to realize a sustainable society on a global scale.
(1) Advanced specialized knowledge, research and development skills, the ability to identify problems, and the ability to solve problems quantitatively
(2) The ability to think flexibly and to have a broad perspective on the relationship between technology

and the environment, economy, and culture
(3) Communication skills and a sense of ethics in response to global society

Degree Assessment Criteria

A master's degree in engineering will be awarded to those who meet the following criteria.

- Students must complete the mid-term examination by the specified date, A score of 60% or more is considered pass, by the combination scores of at least one principal examiner and one other examiner.

＜Architecture and Architectural Engineering Course＞

In the Architecture and Architectural Engineering Course, requires students to acquire the following skills by the time they complete the Master's program: students are required ①to have an interdisciplinary perspective that includes the natural sciences, humanities and social sciences, ②to contribute to the realization of a sustainable society by creating rich architectural and urban spaces, and ③ to be able to play an active role in a modern international society where diverse values coexist, by the time they complete the Master's program and students are also required to acquire the following items :

1. The ability to discover technical and social issues surrounding contemporary architecture and cities, and to proactively work to resolve them, by integrating and making full use of a wealth of education and a broad range of knowledge, while taking into account historical developments to-date.
2. Taking the initiative in exploring a wide range of knowledge and technologies related to architecture, and to present new ways of architecture and cities to others.
3. a high sense of ethics to engage in architecture as a specialist, which is deeply related to nature, society, and human beings
4. the ability to combine knowledge of the natural sciences, humanities, and social sciences with a broad range of expertise in architectural design and construction technology to practice high-level architectural work
5. the ability to recognize the diversity of society and culture, and to collaborate with others while maintaining a high level of communication skills and an international perspective appropriate for a global society.

Degree Assessment Criteria

The Architecture and Architectural Engineering Course awards the degree of Master of Architecture or Master of Engineering to those who have completed the above and meet the following requirements.

* The student must complete the midterm examination by the specified date. In the examination and presentation of the master's thesis, one must passed a minimum score of 60% , by the combination scores of at least one principal examiner and one other examiner.

【Doctor's Program】

The Doctoral Program of the Graduate School of Engineering and Science aims to nurture researchers and engineers who can work together with researchers and engineers from around the world to solve various global problems for the realization of a sustainable society and who can independently conduct creative research.

Based on the above objectives, the Doctor of Engineering degree will be conferred on those who satisfy the requirements for completion set forth by the Graduate School and who, based on their academic performance and the results of the dissertation examination, are deemed to possess the knowledge, abilities, and qualities described below. If the main content of the dissertation includes elements other than engineering, a doctoral degree (academic) will be awarded.

- Ability to harmonize the entire system from a comprehensive standpoint.
- Ability to promote and develop excellent, creative research.
- Ability to become a highly specialized researcher
- Advanced communication skills to cope with global society.
- Awareness of the diversity of the world and society, and high ethical standards.

In addition, students who complete the lecture courses of the Technology Management Sub-major Program and obtain the required credits will be awarded the Technology Management Sub-major Program Certificate.

[Doctoral Degree by completing of the Course]

Those who have been enrolled in the Doctoral Program for a specified period of time and who have met the completion requirements under the academic rules as professional engineers or researchers with abundant academic knowledge through taking lecture subjects and writing doctoral dissertations. A doctoral (Engineering) degree will be awarded to those who have been judged to have the qualities to be able to stand on their own and who have met the degree examination criteria indicated by the major. In addition, if the main content of the dissertation includes elements other than engineering, a doctoral (Academic) degree will be awarded.

[Doctoral degree by Thesis Submission (Doctoral dissertation)]

Applicants who are not enrolled in a doctoral (second semester) program and who have been engaged in research and development work for at least five years after graduation (including the time spent in a master's program for those who have completed a master's program), or who are recognized by the Graduate School of Engineering and Science Committee as having an equivalent background, may apply for the award of a doctoral degree by submitting a thesis. Upon receipt of the application, the Graduate School of Engineering and Science examines the applicant's academic ability and the content of the thesis submitted. As a result, the Graduate School of Engineering and Science will confer the doctoral degree to those who are judged to have the same or higher academic and research abilities as those who have completed a doctoral program, and who have already established themselves as professional engineers or researchers with a wealth of academic knowledge, and who meet the degree examination standards specified by the Department. If the main content of the dissertation includes elements other than engineering, the doctoral degree (Academic) will be awarded.

＜Regional Environment Systems Course＞

The educational goal of the Regional Environmental Systems Department is to develop and nurture human talents and resources who have a broad perspective on the local regional environment and capable to utilize their expertise to realize their own ideas. In order to obtain a degree in this major, in

addition to the submission of a dissertation, it is necessary to satisfy the degree examination standards set by this major. The degree examination standards are scored on the examination sheet in the degree examination.

Degree Assessment Criteria

The degree of Doctor of Philosophy (Engineering or Science) will be awarded to those who meet the following criteria. In addition to the submission of a dissertation, the following criteria must be met in order to receive a degree in this course.

(1) Degree Assessment Criteria for Candidates in the Doctoral Program

① Period of enrollment

Students must have been enrolled in the doctoral program of the Graduate School for at least three years and have received the prescribed research guidance. However, those who have achieved outstanding research results need only be enrolled for at least one year.

② Research achievements

(i) At least two papers submitted as the first author to academic journals reviewed by academic societies and published during the period of enrollment, in principle. However, one of the two papers may be replaced by two proceedings of international conferences (first author) that have been reviewed. If the student is not the first author but is the first contributor, the primary supervisor may substitute this by attaching a document showing the student's contribution as the first contributor.

(ii) If the paper has been accepted for publication in a journal or for presentation at an international conference, please attach documentation to prove this.

(2) Degree Assessment Criteria for Doctoral Program by Completion of Coursework (Early Completion Course for Working Adults)

① Period of enrollment

The period of study shall be one year. However, if the student is unable to complete the course in one year, the student must continue in the program and complete it in three years.

② Research achievements

(i) At least three peer-reviewed papers (including permission for publication) by the first or second author(s) related to the content of the dissertation. However, at least one of the papers must be by the first author. If the student is not the first author but is the first contributor, the primary supervisor can substitute this by attaching a document showing the student's contribution as the first contributor.

(ii) The student must have at least one international conference proceedings as a presenter (first author) during his/her studies. However, the presentation must be made before the final examination or be accompanied by a document certifying that it has been made. Note that the presentation in question may have been submitted prior to enrollment.

(iii) If the presentation has been accepted for publication in a journal or for presentation at an international conference, a document proving the acceptance must be attached.

※Those who are eligible to apply for the Early Completion Course for Working Adults must be working adults who have a certain level of research achievement in the following categories.

① Those who have completed a master's course and have at least three years of work experience.
② Applicants must have at least two refereed papers.

(3). Criteria for Assessment of doctoral degree by Thesis
① The applicant must have graduated from a university and have at least five years of experience in research and development work, and must have submitted at least five papers as the first author to academic journals reviewed by academic societies and published in them. However, when a student who has withdrawn at maturity applies for the award of a doctoral degree without being re-enrolled, the examination criteria for a course doctorate will be applied with regard to research achievements only if the examination is completed within two years of the student's withdrawal at maturity.
However, for exchange students based on a double degree agreement, the regulations for research achievements in the doctoral program will be applied as the degree examination standards criteria.
② Those whose research results have been accepted for publication in academic journals must attach a document certifying the acceptance.

＜Functional Control Systems Course＞

The Department of Functional Control Systems aims to nurture highly specialized researchers and professionals who have excellent research promotion and research and development abilities with creativity in the fields of communication function control, functional device control, system control, and life function control, and who can solve various global problems for the realization of a sustainable society in cooperation with researchers and engineers around the world.

Based on the above educational objectives, the doctoral degree (engineering or academic) will be conferred on those who satisfy the requirements for requesting the doctoral degree set forth by the Graduate School and who, based on the results of the dissertation examination, are recognized as having the qualities and abilities listed below.

- Excellent research promotion and Research and Development ability with abundant creativity.
- Ability to become a highly specialized engineer and researcher.
- Advanced communication skills that can respond to the global society.
- Awareness of diversity in the world and society and high ethical standards.

Degree Assessment Criteria

1. Degree Assessment Criteria for Candidates in the Doctoral Program

(1) Registered period

Candidates must have been registered with the Doctor’s Program at this Graduate School and have received prescribed research guidance. However, for the candidates whose research achievement is exceptionally good, the period registered with the program can be reduced to just over one year.

(2) Research Achievement

(i) In principle, Candidates must have submitted and published two articles as the first author in academic journals involving an assessment by the Academic Society Home Village during the period in which they are registered with the program. However, one of these two journal articles can be replaced with two proceedings (as a first author) for an international conference involving an assessment.

(ii) Candidates whose article has been accepted by an academic journal to be published or at an

international conference to be presented must attach documents to prove these acceptances.

2. Degree Assessment Criteria for the Candidate of Doctoral Degree by Completion of Coursework

(1) Enrollment period

The enrollment period is one year. However, if you cannot complete the course in one year, you will continue to be enrolled in the school, and your study term will be three years. Completion in less than three years is also possible.

(2) Research achievements

(i) Have at least three peer-reviewed papers (including permission to publish) by the first or second author related to the contents of the dissertation. However, it is necessary to include at least one publication as first author's dissertation. If you are not the first author but a lead contributor, the supervisor in charge will replace this by attaching a document indicating the degree of contribution of the student as the lead contributor.

(ii) Have at least one international conference paper (no peer review is possible) as a presenter during enrollment. However, it is necessary that the presentation is to be conducted by the final examination or that an attached document proving that the presentation was conducted. The paper presentation (international conference) which is applied before program enrollment is also possible.

(iii) If you decide to publish a journal or make a presentation at an international conference, it is necessary to attach documents proving it.

※Applicants who can apply for the working adult Doctoral course program are those who have the following research achievements :

(1) Those who have completed a master's course and have at least three years of work experience.

(2) Those who have two or more papers (with peer review).

3. Degree Assessment Criteria for the Candidate of Doctoral Degree by Thesis

(1) A person who has been in research and development for more than 5 years after graduating from university, submitted as a first author to an academic journal reviewed by an academic association, and has published at least 5 published papers. However, if a student who has withdrawn and left university upon completion of the program period applies for the conferment of the doctoral degree without re-entering the program, the assessment criteria for candidates in the Doctor’s Program will be applied to assess their research achievement only if the assessment is completed within two years following the date, the research criteria of the doctoral student will be applied for research achievements.

However, for exchange students based on the Double Degree Agreement, the rules regarding research achievements at the Doctoral program will be applied as the degree examination criteria.

(2) Candidates whose article has been accepted by an academic journal to be published must attach documents to prove the acceptance.

Student Registration

(1) Student Registration Definitions

Only those who passed the entrance examination and completed all the enrollment procedures, have been issued a student ID card, are students who are eligible to study and do research activities at Shibaura Institute of Technology (SIT).

Registration means your record is filed as a student at SIT. Students are those who have completed their registration and are studying and doing research activities at SIT.

Please be responsible to be a student of SIT.

CATEGORIES	CONTENTS
Program Duration	It takes 2 years to complete the Master's Program. It takes 3 years to complete the Doctor's Program. However, absence and suspension period will not be included to those years.
Period as a Student	You could be a student for maximum 4 years in the Master's Program, 6 years in the Doctor's Program.
How to Complete	To be awarded a graduate degree, all the required credits must be satisfied and a student must pass the final examination (thesis assessment). For those who have completed the Master's Program, SIT is going to confer a Degree of Master of Engineering or a Degree of Master of System Engineering. The Doctor's Program students will be awarded a Doctor of Philosophy Degree by SIT.

(2) Change your status

Please check the table below to see which status you are going to apply for. You will be asked to submit the related forms by the designated due after consulting with your supervisor.

CATEGORIES		CONTENTS
Repeat for Another Year	What does "Repeat for another year" mean?	Failure to meet the assessment criteria on the second year of the Master's Program or the third year of the Doctor's Program will result in repeat for another year to complete the program.
Temporary Leave	What does "Temporary leave" mean?	A student may wish to take a leave（more than 2 months）if you become serious ill or have any other reasons that you cannot come to university. Please complete an application form to take a leave. ① Discuss a leave of absence with your supervisor. ②Submit a doctor's evaluation to support your claim along with the application form in case of leaves due to a medical or psychological condition.

CATEGORIES		CONTENTS
Temporary Leave		※If you receive a scholarship, additional steps are also required to take.
	Duration of leave	In general, the duration of the leave will be a minimum of 2 months to a maximum of 1 year. The leave period should be taken during the following academic terms; 1 year leave: April 1st ~ March 31st (following year) Leave in Spring semester: April 1st ~ September 30th Leave in Fall semester: October 1st ~ March 31st (following year)
	Application due	Deadline to take leave in Spring semester: Early March Deadline to take leave in Fall semester: Early September
	Course terms	The period of leave will be included to the total length of period as a student at SIT, but not as the time of your study.
	Credits	You cannot earn any credits during the leave even after you have submitted the course registration.
	Tuition	If you submit your application form and it is approved before the beginning date of each semester, you may be eligible for exemption from the payment of tuition during the period of leave. (Only the administration fee needs to be charged)
Reinstatement	What does “reinstatement” mean	The approved temp leave period is over, so your status will be back to “student”
	Application due	Application form will be sent to you. The submission deadline is: Returning in Spring semester: Early March Returning in Fall semester: Early September
	Tuition	You should pay both tuition and administration fee for your returning semester.

CATEGORIES		CONTENTS
Withdrawal	What does “withdrawal” mean	Students who leave SIT for their personal reasons: ① Consult with your supervisor. ② Submit the application form with your student ID card. Those who are expelled from school include the one who: ① Breaks the pledge you signed on the enrollment ② Disturbs other students by showing inappropriate behaviors and has no sign of improvement. ③ Has poor academic record and least chance to complete the program. ④ Does not attend classes regularly without any reasons. ⑤ Breaks the rules and behaves inappropriate ways as our student.
	Application due	Please submit the form by the following deadlines: Spring semester: Early March Fall semester: Early September
	Tuition	Students must pay all the tuitions and fees owing up to the semester studying at SIT.
Removal from the Registration	What does “removal from the registration” mean	Student registration will be cancelled for those who: ① Have been reported as a missing person. ② Have (an) overdue tuition payment(s) and are not still going to make a payment after receiving the notice from SIT ③ Stay over the period as a student. ④ Have not submitted the form after temporary leave is over.
Suspension	What does “suspension” mean	Suspension will be applied to those who: ① Do not follow the SIT’s Regulations. ② Take any dishonest behaviors during the examination. ③ Take any inappropriate actions as a student. Your graduation will be postponed depending on the period of disciplinary action.
Readmission	What does “readmission” mean	Student who was withdrawn or removed due to the absence of payment by SIT may be able to get admission again.
	Application due	Spring semester: by the mid of December Fall semester: by the mid of June
	Tuition	Students are asked to pay the tuition from the semester that they are back.

Credits and Courses

(1) Types of Credits

① Research guidance: This includes credits you must earn through exercises and experiments that the laboratory you belong to offers. Those credits should be earned before completing your study at SIT.

② Elective subjects: Those are the credits you can choose to earn based on your own need or interest.

(2) Timetable

1st period	2nd period	3rd period	4th period	5th period	6th period
9:00-10:40	10:50-12:30	13:20-15:00	15:10-16:50	17:00-18:40	18:50-20:30

(100 minutes per period)

(3) Lecture Cancellation/ Makeup Class

Professors will call for a lecture cancellation when they are not able to give a lecture/class for some special reasons such as going to a business trip and being ill. Professors may not be able to finish all the contents on syllabus during the semester for above reasons. In that case, they may have (a) makeup class(es) if necessary.

The lecture cancellation/ makeup class information will be posted on the bulletin board. The information is available on the SIT website with your mobile phone or the Scomb.

(4) Class Registration

In principle, you can register classes up to “20 credits” per year excluding special exercises and experiments and class registration needs to be done by each semester.

(5) Maximum number of credits for classes in your course

When students take courses other than those in their own course as described below, the following credits will be granted if approved by the Graduate School of Science and Engineering Committee.

①Courses taken through the Graduate School Pre-emptive Class System: Up to 10 credits

②Courses in other courses, maximum 10 credits

③Courses in graduate schools of **other universities during the period of enrollment** (including courses offered by the credit transfer system of Tokyo University of Marine Science and Technology and Ochanomizu University), up to 15 credits

④Graduate school courses taken at **other universities prior to enrollment**: Maximum 15 credits

Maximum 20 credits for the combination of ③ and ④.

Final Grades

Final grades will be determined by the following grading system and be notified to students. Final grades and the credits will be included on the “Notice of the Grades” which is posted from S*gsot.

(1) Grading System

① PASS

A･･･100-80(points)　B･･･79-70(points)　C･･･69-60(points)

N･･･Transfer credit (subjects that students took in other educational institute and approved at SIT.)

② UNSATISFACTORY (You should take the same course again or choose to take another alternative course)

D･･･59-50(points)　F･･･49-0(points)

③ Others

G･･･In progress

#･･･Unreported Result (Please ask your supervisor and the staff at Graduate School Section)

(2) Grade Confirmation

If you have any questions about your final grades, please come to Graduate School Section. You can access S*gsot to check your grades. If you are not satisfied with your grades, you can talk to the professors directly. Please bring your “Notice of the Grades” with you when you see the professors.

(3) Unsatisfactory

Final grades will be printed on School Register and be kept at SIT permanently.

That means unless you retake the unsatisfactory class and pass it, your grade of the class will be printed on the “School Register” and “Notice of the Grades” as “D” or ”F”.

※An academic transcript may be required for your job search and application for graduate school. Only passing grades (A, B, C, N) will be printed on your academic transcript. The grade of unsatisfactory would not be printed on it. A=Excellent, B=Good, C=Satisfactory, N= Transfer credit.

Information

(1) Announcements

All the important information from SIT would be provided by the following methods. Check the information with all the methods regularly.

① Any change on course list and classroom and intensive lecture schedule ･･･ Scomb

② Class registration, grades, etc. ･･･ S*gsot.

③ Lecture cancellation/ Makeup class ･･･ Scomb

④ In case of fire or earthquake or other emergency ･･･ broadcasting inside SIT, SIT website

⑤ Other important information ･･･ bulletin board, SIT website, Scomb

Completion Requirements

Master's Program

(1) Each course requires more than 30 credits to be completed.
12 credits from research guidance, and 18 or more credits from elective subjects.

(2) Master's thesis is written and submitted upon receiving research guidance and should be passed the assessment and final examination.

【Notice】

*You need to talk to your supervisor before the class registration.

*If you fail to get credits from the research guidance on the first year, "the certificate of expected completion" cannot be issued on the second year.

*As for Degree Conferment Examination Criteria, check the Diploma Policy.

*Students participating in double degree programs are required to meet the completion requirements of each double degree program. Please refer to the "Guidelines for Double Degree Programs" posted on the university website for detailed program information.

≪Research Guidance≫

●Course: Electrical Engineering and Computer Science, Materials Science and Engineering, Applied Chemistry, Mechanical Engineering, Systems Engineering and Science, Civil Engineering.

Research Guidance	Credits	1st year		2nd year		Professor
		Spring semester	Fall semester	Spring semester	Fall semester	
Special Exercise1	1	○				Each Supervisor
Exercise2	1		○			
Exercise3	2			○		
Exercise4	2				○	
Special Experiment1	1	○				
Experiment2	1		○			
Experiment3	2			○		
Experiment4	2				○	

(The table above is a reference for those who enroll in Spring semester)

●Course: Architecture and Architectural Engineering (Research guidance with ※mark (design) in the subject assignment list has only special exercises that 12 credits should be earned)

Research Guidance	Credits	1st year		2nd year		Professor
		Spring semester	Fall semester	Spring semester	Fall semester	
Special Exercise1	1	○				Each Supervisor
Exercise2	1		○			
Exercise3	2			○		
Exercise4	2				○	
Special Experiment1	1	○				
Experiment2	1		○			
Experiment3	2			○		
Experiment4	2				○	
※Special Exercise1	2	○				Each Supervisor
※Exercise2	2		○			
※Exercise3	4			○		
※Exercise4	4				○	

(The table above is a reference for those who enroll in Spring semester)

●Course: Global Course of Engineering and Science

Research Guidance	Credits	1st year				2nd year				Professor
		1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	
Special Exercise1	1	○								Each Supervisor
Exercise2	1		○							
Exercise3	1			○						
Exercise4	1				○					
Exercise5	1					○				
Exercise6	1						○			
Exercise7	1							○		
Exercise8	1								○	
Special Exercise1	1	○								Each Supervisor
Exercise2	1			○						
Exercise3	1					○				
Exercise4	1							○		

(The table above is a reference for those who enroll in Spring semester)

The number of research guidance classes per week

The number of research guidance classes per week is as below.

Confirm the schedule (the days of the week / class period) with your supervisor.

【Electrical Engineering and Computer Science, Materials Science and Engineering, Mechanical Engineering, Systems Engineering and Science, Global Course of Engineering and Science, Civil Engineering】

	1st year Spring semester	1st year Fall semester	2nd year Spring semester	2nd year Fall semester
Exercise	1 class	1 class	2 classes	2 classes
Experiment	2 classes	2 classes	3 classes	3 classes
Total	3 classes	3 classes	5 classes	5 classes

※Global Course of Engineering and Science：Exercises are conducted in quarters.

【Applied Chemistry】

	1st year Spring semester	1st year Fall semester	2nd year Spring semester	2nd year Fall semester
Exercise	1 class	1 class	2 classes	2 classes
Experiment	3 classes	3 classes	3 classes	3 classes
Total	4 classes	4 classes	5 classes	5 classes

【Architecture and Architectural Engineering (design) 】

	1st year Spring semester	1st year Fall semester	2nd year Spring semester	2nd year Fall semester
Exercise	2 classes	2 classes	4 classes	4 classes
Experiment				
Total	2 classes	2 classes	4 classes	4 classes

＊There is no experiment for Architecture and Architectural Engineering (design) course. There are only exercise classes for this course.

【Architecture and Architectural Engineering (engineer) 】

	1st year Spring semester	1st year Fall semester	2nd year Spring semester	2nd year Fall semester
Exercise	1 class	1 class	2 classes	2 classes
Experiment	2 classes	2 classes	3 classes	3 classes
Total	3 classes	3 classes	5 classes	5 classes

Doctor’s Program

(1) Each course needs to take at least 2 credits to complete.

(2) Upon receiving research guidance, you need to pass the Doctoral thesis assessment and the final examination.

[Note] As for Degree Conferment Examination Criteria, check the Diploma Policy.

Requirements for submission of Master's Thesis

The admission policy for the Master's degree program includes [basic communication skills including foreign languages] and also in the diploma policy as [communication skills to cope with global society]. In accordance with this Diploma Policy, students are required to have a certain level of English proficiency in order to complete the master's program and submit a Master's thesis.

1. Requirements for submission of Master's Thesis

   In order to complete the master's program, students must submit a master's thesis and pass the review and final examination. When submitting a master's thesis, students are required to have English proficiency of CEFR B1 level or higher (e.g. TOEIC L&R score of 550 or higher), as registered in the university system S*gsot, or to meet the "special conditions" (students are not able to submit a master's thesis if it does not meet the conditions).

   ① Students who have achieved CEFR B1 level or higher at the time of admission to the Master's program (subject to the highest score from the time of admission to the undergraduate program) and are registered in S*gsot are considered to have met the requirements for submitting Master's thesis.

   ② Students who are below CEFR B1 level at the time of admission to the Master's program but obtaining CEFR B1 level or higher by the time of submission of the Master's thesis outline and registering it in S*gsot will be considered to have fulfilled the requirements for submission of the Master's thesis.

   ③ Even if a student is below CEFR B1 level, but registers the obtained results in S*gsot that he or she has met the "special conditions" by the time the master's thesis outline is submitted, the student is considered to have met the requirements for submitting Master's thesis.

2. How to obtain CEFR B1 level or higher and special conditions

   Please obtain CEFR B1 level or higher in one of the following ways, or meet the "special conditions" and register the required information in S*gsot.

   ① TOEIC (including internal IP test) or other English proficiency test (TOFEL, IELTS, or other test that can evaluate CEFR B1 level) and obtain the score.

   - It is recommended that students take the TOEIC-IP test held on campus (free of charge up to once a year).
   - TOEIC L&R score of 550 or higher is considered to be CEFR B1 level or higher. Other English proficiency tests will be judged based on the "Comparison Table of CEFR and Other Qualifications and Examinations" provided by the Ministry of Education, Culture, Sports, Science and Technology (MEXT).

   ② Students are required to take a designated [English course] (not a class course) offered on campus and obtain an evaluation at CEFR B1 level. In principle, there is no charge for this course, but students may be asked to pay a portion of the cost.

③ Special condition: If you have taken at least twice the designated [English course] offered on campus and have obtained an evaluation for the courses taken, you will be considered to have met the requirements for submitting a master's thesis as a special condition.

3. Notes

- Students with disabilities will be considered, so please contact and consult with the Graduate School Section. (For example, a student with a hearing impairment will be evaluated by doubling the Reading score.)
- International students (including native English speakers) are also eligible for the above, so please obtain a CEFR B1 or higher and register your score on S*gsot.

Subject Assignment List

-Master’ s Course-

＜Electrical Engineering and Computer Science＞

Department･Research Guidance･Supervisor

Department	Research Guidance	Supervisor			Remarks
Materials and Devices	Nanoelectronics	Supervisor	UENO	Kazuyoshi	
	Functional Material Engineering	Supervisor	YAMAGUCHI	Masaki	
	Opto-Electronics Engineering	Supervisor	HOMMA	Tetsuya	
	Photonic Devices Engineering	Supervisor	YOKOI	Hideki	
	Seminar in semiconductor physics and devices	Supervisor	ISHIKAWA	Hiroyasu	
Circuits and Control	Electronic Circuit Engineering	Supervisor	KOIKE	Yoshikazu	
		Supervisor	MAEDA	Tadashi	
		Supervisor	SASAKI	Masahiro	
		Supervisor	PREMACHANDRA	CHINTHAKA	
	Electromagnetic Wave Circuit Technology	Supervisor	TANAKA	Shinichi	
		Co-Supervisor	LEE	HEEYOUNG	
Power and Energy	Electric Machinery and Applications	Supervisor	TAKAMI	Hiroshi	
		Co-Supervisor	SHIMOMURA	Shoji	
		Co-Supervisor	SAITOU	Makoto	
		Co-Supervisor	AISO	Kohei	
	Electric Power System Engineering	Supervisor	FUJITA	Goro	
	Advanced Materials for Energy and Related Areas	Supervisor	NISHIKAWA	Hiroyuki	
	Electric Propulsion	Supervisor	KAWASHIMA	Rei	
	Active Functional Devices	Supervisor	SHIGEMUNE	Hiroki	
Communication	Clustering and Classification in Infocommunications Technology	Supervisor	KANZAWA	Yuuchi	
	Information and Communication Systems	Supervisor	KAMIOKA	Eiji	
	Research in Acoustic Communication and Information Systems	Supervisor	MUTO	Kenji	
	Telecommunication Networks	Supervisor	MORINO	Hiroaki	
		Supervisor	MIYATA	Sumiko	
	Wireless Communication Systems Engineering	Supervisor	GYODA	Koichi	
		Co-Supervisor	SUGA	Norisato	
		Supervisor	HIROSE	Kazuhide	
Information	Computer Architecture and LSI Design	Supervisor	USAMI	Kimiyoshi	
	Data Engineering	Supervisor	KIMURA	Masaomi	
	Interactive Graphics	Supervisor	IJIRI	Takashi	
		Co-Supervisor	SRIPIAN	PEERAYA	
	Study of Distributed System	Supervisor	FUKUDA	Hiroaki	
	Computer Mediated Communication Engineering	Supervisor	YONEMURA	Shunichi	
	Operating Systems and Middleware	Supervisor	SUGAYA	Midori	
	Empirical Software Engineering	Supervisor	NAKAJIMA	Tsuyoshi	
	Intelligent Information Systems	Supervisor	SUGIMOTO	Tooru	
	Programming Languages	Supervisor	SASANO	Isao	
	Human Factor	Supervisor	KASUGA	Nobuyo	
	Socio-Information Systems	Supervisor	NAKAMURA	Hiroyuki	
	Physically Augmented Interaction	Supervisor	MANABE	Hiroyuki	
	Sports Informatics	Supervisor	ISHIZAKI	Satoshi	
	Design of Social Information-Network Systems	Supervisor	SHINKUMA	Ryouichi	

＜Electrical Engineering and Computer Science＞

Department･Research Guidance･Supervisor

Department	Research Guidance	Supervisor			Remarks
Computer Science	Software Engineering and Knowledge Engineering	Supervisor	NODA	Natsuko	
	Mathematical Engineering	Supervisor	MATSUDA	Haruhide	
		Supervisor	MATSUBARA	Ryota	
	Large-Scale Distributed Systems	Supervisor	YAMAZAKI	Kenichi	
	Information Design	Supervisor	YOSHITAKE	Ryoji	
		Supervisor	YANG	WONSEOK	
		Co-Supervisor	HIDAKA	Kyoko	
	Cognitive Science	Supervisor	YATABE	Kiyomi	
	Information and Media Education	Supervisor	OHASHI	Yutaro	
	Fundamentals of Mathematical Physics	Supervisor	MAEDA	Kengo	
Robotics and Mechatronics	Robotics and Mechatronics	Supervisor	SHIMADA	Akira	
		Supervisor	ANDOU	Yoshinobu	
		Supervisor	HASEGAWA	Tadahiro	
		Supervisor	YOSHIMI	Takashi	
		Supervisor	ABIKO	Satoko	
		Supervisor	SHIMIZU	Sota	
		Supervisor	YASUMURA	Yoshiaki	
		Co-Supervisor	KAWAGUCHI	Keiko	
		Co-Supervisor	SASAKI	Takeshi	
Bionics	Bioelectronics	Supervisor	SAITOH	Atsushi	
	Biomedical Engineering Measurement	Supervisor	KANOH	Shinichiro	
	Bionic Communication Engineering	Supervisor	HORIE	Ryota	
	Molecular Sensor Engineering	Supervisor	TOMA	Koji	

＜Electrical Engineering and Computer Science＞

Subject･Lecturer Professor･Number of Credits･Semester

Subject	Credits	Semester				Lecturer Professor	Course in English	Note
		Spring		Fall				
		1Q	2Q	3Q	4Q			
Nano Devices and Materials	2	○				UENO Kazuyoshi	○	
Optical Fiber Engineering	2			○		YOKOI Hideki	○	
Epitaxial Semiconductor Materials	2	○				ISHIKAWA Hiroyasu	○	
Advanced Electronic Circuit	2			○		KOIKE Yoshikazu	○	
Electric Power Control	2	○				TAKAMI Hiroshi	○	
Advanced Power System	2	○				FUJITA Goro	○	
Advanced Quantum－Beam Applications	2	○				NISHIKAWA Hiroyuki	○	
Ubiquitous Computing System	2			○		KAMIOKA Eiji	○	
Mobile Communication Networks	2	○				MORINO Hiroaki	○	
Wireless Communications Network	2	○				GYODA Koichi	○	
Advanced Antenna Engineering	2	○				HIROSE Kazuhide	○	
Advanced Computer Architecture	2			○		USAMI Kimiyoshi	○	
Advanced Information System Engineering	2			○		SRIPIAN PEERAYA	○	
Advanced OS and Virtualization	2	○				FUKUDA Hiroaki	○	
Topics in Data Engineering	2	○				KIMURA Masaomi	○	
Autonomous Mobile Robot System	2	○				ANDOU Yoshinobu	○	
Micro Mechatronics	1				○	HASEGAWA Tadahiro	○	
Robot Task & System	2			○		YOSHIMI Takashi	○	
Space Robotics	2	○				ABIKO Satoko	○	
Sensor Engineering	2			○		SAITOH Atsushi	○	
Advanced Neural Engineering	2			○		KANOH Shinichiro	○	
Bionic and biomimetic system engineering	2	○				HORIE Ryota	○	
Urban and Regional Development in Information Age	2			○		NAKAMURA Hiroyuki	○	
Advanced Seminar in Advertising Design	2	○				HIDAKA Kyoko	○	
Seminar in Cognitive Science	2	○				YATABE Kiyomi	○	
Information Network Design	2	○				SHINKUMA Ryouichi	○	
Space Electric Propulsion	2			○		KAWASHIMA Rei	○	

＜Materials Science and Engineering＞

Department･Research Guidance･Supervisor

Department	Research Guidance	Supervisor		Remarks
Basic Materials	Material Chemistry	Supervisor	NODA Kazuhiko	
	Physical Metallurgy	Supervisor	KARIYA Yoshiharu	
	Extreme Materials Science	Supervisor	NAGAYAMA Katsuhisa	
	Advanced Research Program on Thin Film Materials and Its Application	Supervisor	YUMOTO Atsushi	
	Semiconductor Materials	Supervisor	KYUNO Kentaro	
	Materials science of random system	Supervisor	MASAKI Tadahiko	
	Resources and Energy Material Science	Supervisor	ARAI Tsuyoshi	
	Materials Science	Supervisor	SHIMOJO Masayuki	
	Advanced Materials	Supervisor	ISHIZAKI Takahiro	
	Materials design research	Supervisor Co-Supervisor	SERIZAWA Ai LEE SO YOON	
	Observational Astrophysics	Supervisor	WATANABE Yoshimasa	
	High-pressure Material Science	Supervisor	YAMAMOTO Ayako	
Material Property	Biomaterials Science and Engineering	Supervisor	MATSUMURA Kazunari	
	Study of high functional materials	Supervisor Supervisor	SAKAI Naomichi ENDO Rie	
	Research of Bioorganic Material Chemistry	Supervisor	HATANO Akihiko	
	Applied Photochemistry	Supervisor	KONISHI Toshifumi	

＜Materials Science and Engineering＞

Subject･Lecturer Professor･Number of Credits･Semester

Subject	Credits	Semester				Lecturer Professor	Course in English	Note
		Spring		Fall				
		1Q	2Q	3Q	4Q			
High Functional Materials	2	No classes in 2022				Undecided	○	
Materials Chemistry	2				○	NODA Kazuhiko	○	
Thin Film Physics	2	○				KYUNO Kentaro	○	
Methods in Bio－inspired Nanomaterial Science	2	○				MATSUMURA Kazunari	○	
Basic Physics in Electron Microscopy	2	○				SHIMOJO Masayuki	○	
Enzyme Engineering	2			○		HATANO Akihiko	○	
High-pressure science	2		○			YAMAMOTO Ayako	○	

＜Applied Chemistry＞

Department･Research Guidance･Supervisor

Department	Research Guidance	Supervisor		Remarks
Physical Chemistry	Applied Photochemistry	Supervisor	KONISHI Toshifumi	
	Applied Electrochemistry	Supervisor	IMABAYASHI Shinichiro	
	Organic Electron Transfer Chemistry Exercise	Supervisor	TAJIMA Toshiki	
	Chemical Engineering	Supervisor	YOSHIMI Yasuo	
	Research of Energy Engineering	Supervisor	NOMURA Mikihiro	
Organic Chemistry	Synthetic Organic Reaction	Supervisor	KITAGAWA Osamu	
	Organic Materials Chemistry	Supervisor	KIDOWAKI Masatoshi	
	Polymer Materials Chemistry	Supervisor Co-Supervisor	NAGA Naofumi AHMED KUMKUM	
	Supramolecular Chemistry	Supervisor	NAKAMURA Asao	
	Research of Biomolecular Chemistry	Supervisor	HATANO Akihiko	
	Organic Electronic Materials Chemistry	Supervisor	GARY JAMES RICHARDS	
Analytical Chemistry	Environmental Analytical Chemistry	Supervisor	MASADOME Takashi	
Biological Science	Life Science	Supervisor	YAMASHITA Mitsuo	
	Study on chemical biology	Supervisor	HAMASAKI Keita	
Inorganic Chemistry	Inorganic Materials Chemistry	Supervisor	KIYONO Hajime	
	Molecular Assemblies for Crystal Engineering	Supervisor	HORI Akiko	
	Energy materials creation chemistry laboratory	Supervisor	OGUCHI Hiroyuki	

＜Applied Chemistry＞

Subject･Lecturer Professor･Number of Credits･Semester

Subject	Credits	Semester				Lecturer Professor	Course in English	Note
		Spring		Fall				
		1Q	2Q	3Q	4Q			
Biomedical Technology Based on Chemical Engineering	2			○		YOSHIMI Yasuo	○	
Environmental Analytical Chemistry	2	○				MASADOME Takashi	○	
Bioorganic Photochemistry	2			○		NAKAMURA Asao	○	
Chemical Biology	2	○				HAMASAKI Keita	○	
Life Science	2			○		YAMASHITA Mitsuo	○	
Energy and Water Treatment Based on Chemical Engineering	2	○				NOMURA Mikihiro	○	
Basic Electrochemistry	2	○				IMABAYASHI Shinichiro	○	
Organic Stereochemistry	2			○		KITAGAWA Osamu	○	
Chemistry of Solid State Materials	2	○				KIYONO Hajime	○	
Polymer Chemistry	2	○				NAGA Naofumi	○	
Enzyme Engineering	2			○		HATANO Akihiko	○	
Self-Assembles for Crystal Engineering	2			○		HORI Akiko	○	
Advanced Organic Electronic Materials Chemistry	2			○		GARY JAMES RICHARDS	○	

＜Mechanical Engineering＞

Department・Research Guidance・Supervisor

Department	Research Guidance	Supervisor		Remarks
Mechanics /Materials / Process	Structure and Properties of Materials for Mechanical Engineering	Supervisor	TAKASAKI Akito	
	Machinery dynamics	Supervisor	HOSOYA Naoki	
	Granular dynamics	Supervisor	SAEKI Masato	
	Solid Mechanics	Supervisor	SAKAUE Kenichi	
	Research of Advanced Design based on Material Strength	Supervisor	HASHIMURA Shinji	
	Materials Reliability Engineering	Supervisor	UTSUNOMIYA Takao	
	Study for Processing on Structual Materials	Supervisor	AOKI Koushirou	
Fluids /Heat /Energy	Thermal Fluids Engineering	Supervisor	TSUNODA Kazumi	
	Microscale Thermofluid Engineering	Supervisor	TANGE Manabu	
	Advanced Fluid Technology and Applications	Supervisor	SUWA Yoshihide	
	Studies on Thermal Process Engineering	Supervisor	KIMIJIMA Shinji	
	Studies on Energy and Environmental Engineering	Supervisor	YAHAGI Yuji	
	Studies on Radiation Transfer	Supervisor Supervisor	YAMADA Jun RAJAGOPALAN UMAMAHESWARI	
	Studies on Energy Transport Engineering	Supervisor	TANAKA Kotaro	
	Combustion Engineering	Supervisor	SAITO Hiroyasu	
	Study on Thermal Fluid Science and Engineering	Supervisor	SHIRAI Katsuaki	
Control /Information /Intelligence	Fluid Power Control	Supervisor	KAWAKAMI Yukio	
	Dynamic System Control Theory	Supervisor	ITO Kazuhisa	
	Robot Control Engineering	Supervisor	UCHIMURA Yutaka	
	Advanced Motion Control	Supervisor	SHIMADA Akira	
Humans-Mechanical System /Life Support	Human-Machine Interface	Supervisor Co-Supervisor	HIROSE Toshiya NAKAMURA Shingo	
	Biomechanics and Injury Prevention	Supervisor	YAMAMOTO Sota	
	Biomicrofluidics Research Project	Supervisor	FUTAI Nobuyuki	
Design	Study for Product Design	Supervisor Supervisor Supervisor Supervisor Supervisor Co-Supervisor	YOSHITAKE Ryoji HASHIDA Noriko YANG WONSEOK ASHIZAWA Yusuke SAKURAGI Shin SHIGERI Mitsuhiro	
	Functional Material Engineering	Supervisor	YOSHIHARA Shouichirou	
	Manufacturing Engineering	Supervisor	SAWA Takekazu	
	Photonic Design Engineering	Supervisor	TANABE Tadao	
	Model-Based Design	Supervisor	HAYABUSA Keisuke	
Nano /Micro	Research on Laser and Laser Applications	Supervisor	MATSUO Shigeki	
	Studies on Heat and Mass Transfer	Supervisor	ONO Naoki	
	Micro Robotics	Supervisor	NAGASAWA Sumito	
	Studies on electronic properties under multiple extreme conditions	Supervisor	ISHII Yasuyuki	
	Study of computational Statistical Physics	Supervisor	TOMITA Yusuke	
	Microsystem Integration	Supervisor	YOSHIDA Shinya	

＜Mechanical Engineering＞

Subject･Lecturer Professor･Number of Credits･Semester

Subject	Credits	Semester				Lecturer Professor	Course in English	Note
		Spring		Fall				
		1Q	2Q	3Q	4Q			
Advanced Materials Science	2			○		TAKASAKI Akito	○	
Human － Machine System	2			○		HIROSE Toshiya	○	
Biomechanics & Injury Prevention	2	○				YAMAMOTO Sota	○	
Experimental Thermo－fluid Engineering	2	○				TANGE Manabu	○	
Transport Phenomena	1			○		TANAKA Kotaro	○	
Advanced Applications of Fluid Engineering	2	○				SUWA Yoshihide	○	
Adaptive and Optimal Control	2	○				ITO Kazuhisa	○	
Microscale Machines and Mechanics	2	○				ONO Naoki NAGASAWA Sumito	○	
Microscale Fluid Mechanics	2			○		ONO Naoki	○	
Advanced Structural Dynamics	1	○				HOSOYA Naoki	○	
Advanced Thermal Fluid Measurement Science and Engineering	2			○		SHIRAI Katsuaki	○	
Materials and Their Interaction with Electromagnetic Waves － Theory and Measurement	2	○				RAJAGOPALAN UMAMAHESWARI YAMADA Jun	○	
Optical Engineering	2			○		RAJAGOPALAN UMAMAHESWARI	○	

＜Systems Engineering and Science＞

Department･Research Guidance･Supervisor

Department	Research Guidance	Supervisor		Remarks
Machine Control	System Design	Supervisor	HASEGAWA Hiroshi	
		Supervisor	WATANABE Dai	
		Co-Supervisor	TANAKA Minami	
		Co-Supervisor	BUI NGOC TAM	
	Research in Advanced Mechatronics	Supervisor	ADACHI Yoshitaka	
	Fluid Control Systems	Supervisor	KAWAKAMI Yukio	
	Control Systems Engineering	Supervisor	CHEN XINKAI	
	Advanced Driver Assistance Systems	Supervisor	ITO Toshio	
	Study on the Control Systems of Cell Physiology	Supervisor	YOSHIMURA Kenjiro	
	Robotics System	Supervisor	IIZUKA Kojiro	
	Precision Systems	Supervisor	SAKAI Yasunori	
Electronic Information	Signal Processing	Supervisor	WATANABE Eiji	
	Research in Medical Ultrasonic Engineering	Supervisor	TANAKA Naohiko	
	Advanced Communication Design	Supervisor	MANO Kazunori	
	Information Networking Systems	Supervisor	MIYOSHI Takumi	
		Supervisor	YAMAZAKI Taku	
	Image Processing Systems	Supervisor	TAKAHASHI Masanobu	
		Co-Supervisor	SUZUKI Tetsuya	
	Observation System for Space and Astrophysical Science	Supervisor	YOSHIDA Kenji	
		Supervisor	KUBOTA Aya	
	Community Information System	Supervisor	MURAKAMI Kayoko	
	Materials for Energy and Environment	Supervisor	MIRYALA MURALIDHAR	
	Electronic Circuits and Systems Design	Supervisor	NICODIMUS RETDIAN	
	Research in Data Science and Simulation	Supervisor	ICHIKAWA Manabu	
	Analysis and Applications of Nonliner System	Supervisor	IOKA Eri	
	Cognitive Systems	Supervisor	YATABE Kiyomi	
	Advanced Software Engineering	Supervisor	HISAZUMI Kenji	
	Social Simulation	Supervisor	GOTO Yusuke	
	Neural Information Processing	Supervisor	HOSAKA Ryosuke	
Social and Environmental	Special Lecture on Social Mathematical Systems	Supervisor	MUTO Masayoshi	
	Special Lectures on Economic System	Supervisor	KOYAMA Yusuke	
		Co-Supervisor	YATAGAWA Rumi	
		Co-Supervisor	HONDA Mari	
	Environmental System Studies	Supervisor	IWATA Tomoko	
		Supervisor	NAKAGUCHI Takahiro	
	Topics on Management System	Supervisor	TANAKA Hideho	
	Planning for Urban and Regional Resilience	Supervisor	NAKAMURA Hitoshi	
		Supervisor	TAGUCHI Hiroyuki	
		Co-Supervisor	YASMIN BHATTACHARYA	
	Information Design	Supervisor	MASUDA Yukihiro	
	Environmental Policy Studies	Supervisor	SODENO Reiko	

＜Systems Engineering and Science＞

Department･Research Guidance ･Supervisor

Department	Research Guidance	Supervisor			Remarks
Life Sciences	System research in biomedical control	Supervisor	WATANABE	Nobuo	
		Supervisor	NAKAMURA	Naoko	
	Medicinal Chemistry and Organic Synthesis	Supervisor	SUHARA	Yoshitomo	
		Supervisor	HIROTA	Yoshihisa	
	Molecular Cell Biology	Supervisor	FUKUI	Koji	
	Research on welfare and rehabilitation support system	Supervisor	HANAFUSA	Akihiko	
		Supervisor	YAMAMOTO	Shinichirou	
		Supervisor	AKAGI	Ryota	
		Supervisor	TAKAGI	Motoki	
	Research in food chemistry	Supervisor	OSAKABE	Naomi	
	Advanced Environmental Life Science	Supervisor	FUSE	Hiroyuki	
		Supervisor	AZHAM	ZULKHARNAIN	
		Co-Supervisor	OKUDA	Hiroshi	
	Research on Brain Imaging System	Supervisor	SATOU	Hiroki	
	Health Effects Science	Supervisor	YAJIMA	Ichiro	
Mathematical Science	Applied Mathematical Science	Supervisor	KAMEKO	Masaki	
		Supervisor	OZAKI	Katsuhisa	
		Supervisor	FUKUDA	Akiko	
		Supervisor	SHIMIZU	Kenichi	
		Co-Supervisor	IDOGAWA	Tomoyuki	
		Co-Supervisor	OYA	Hironori	
		Co-Supervisor	SAKURAI	Migiwa	
	Research on Mathematical Control	Supervisor	ZHAI	GUISHENG	
	Research in Mathematical Physics	Supervisor	SUZUKI	Tatsuo	
		Co-Supervisor	NAKATSU	Tomonori	
	Nonlinear Analysis	Supervisor	TAKEUCHI	Shingo	
		Co-Supervisor	ENOMOTO	Yuko	
	Advanced Mathematical Analysis	Supervisor	ISHIWATA	Tetsuya	
	Research on Partial Differential Equation on Complex Domain	Supervisor	YAMAZAWA	Hiroshi	
	Mathematical Analysis	Supervisor	HIROSE	Sampei	
	Design of Lesson Study in Global Engineering	Supervisor	MAKISHITA	Hideyo	
	Educational Development of Higher Education	Supervisor	SAKAKIBARA	Nobuhisa	
	Research in Mathematical Logic	Supervisor	IKEGAMI	Daisuke	
	System of Quantum Information	Supervisor	KIMURA	Gen	

＜Systems Engineering and Science＞

Subject･Lecturer Professor･Number of Credits･Semester

Subject	Credits	Semester				Lecturer Professor	Course in English	Note
		Spring		Fall				
		1Q	2Q	3Q	4Q			
Systems Engineering	2	○				HASEGAWA Hiroshi NIITSU Yoshihiro	○	Compulsory
Exercises in Systems Engineering	2	○				SATO Hiroki SUZUKI Tatsuo YAMAMOTO Shinichirou HASEGAWA Hiroshi OSAKABE Naomi ICHIKAWA Manabu MANO Kazunori YAMAZAKI Atsuko MURAKAMI Kayoko NIITSU Yoshihiro ITO Toshio	○	Compulsory
Seminar in Cognitive Science	2	○				YATABE Kiyomi	○	
Advanced Research Paper Practice	2			○		YAMAZAKI Atsuko MURAKAMI Kayoko	○	
Cross-cultural Engineering Project	2			○		HASEGAWA Hiroshi MANO Kazunori ICHIKAWA Manabu MURAKAMI Kayoko WATANABE Dai	○	
Control Systems Engineering	2	○				CHEN XINKAI	○	
Statistical Signal Processing	2		○			MANO Kazunori	○	
Data Communication Network	2			○		MIYOSHI Takumi	○	
Engineering Optimization	2		○			HASEGAWA Hiroshi	○	
Neurophysiology and Rehabilitation Engineering	2	○				YAMAMOTO Shinichirou	○	
Welfare Engineering	2			○		HANAFUSA Akihiko	○	
Advanced Biofluid Engineering	2		○			WATANABE Nobuo	○	
Cohomology of Classifying Spaces	1	No classes in 2022				KAMEKO Masaki	○	Open in odd-numbered years
Linear Representations of Finite Groups	1	○				KAMEKO Masaki	○	Open to even-numbered years
Advanced Robust Control	1	No classes in 2022				ZHAI GUISHENG	○	Open in odd-numbered years.
Advanced Digital Control	2	○				ZHAI GUISHENG	○	Open to even-numbered years
Advanced Driver Assistance Systems	2			○		ITO Toshio	○	
Language Information Management	2	○				MURAKAMI Kayoko	○	
Advanced Course on Materials for Energy and Environment	2			○		MIRYALA MURALIDHAR	○	
Electronic Circuits and Systems	2	○				NICODIMUS RETDIAN	○	
Spatial Planning for Disaster Risk Reduction	2	○				NAKAMURA Hitoshi YASMIN BHATTACHARYA	○	
Urban Environmental System Planning	2			○		MASUDA Yukihiro	○	
Introduction to Mathematical Logic	2			○		IKEGAMI Daisuke	○	

＜Global Course of Engineering and Science＞

Department･Research Guidance･Supervisor

Department	Research Guidance	Supervisor			Remarks
Advanced Science and Innovative Engineering	Advanced Science and Innovative Engineering	Supervisor	TAKASAKI	Akito	
		Supervisor	KAMIOKA	Eiji	
		Supervisor	MIYOSHI	Takumi	
		Supervisor	MIRYALA	MURALIDHAR	
		Supervisor	YAMAMOTO	Ayako	
		Supervisor	RZEZNICKA	IZABELA IRENA	
		Supervisor	NICODIMUS	RETDIAN	
		Supervisor	UENO	Kazuyoshi	
		Supervisor	YOKOI	Hideki	
		Supervisor	ISHIKAWA	Hiroyasu	
		Supervisor	KOIKE	Yoshikazu	
		Supervisor	TAKAMI	Hiroshi	
		Supervisor	FUJITA	Goro	
		Supervisor	NISHIKAWA	Hiroyuki	
		Supervisor	MORINO	Hiroaki	
		Supervisor	GYODA	Koichi	
		Supervisor	HIROSE	Kazuhide	
		Supervisor	USAMI	Kimiyoshi	
		Supervisor	KIMURA	Masaomi	
		Supervisor	ANDOU	Yoshinobu	
		Supervisor	YOSHIMI	Takashi	
		Supervisor	KANOH	Shinichiro	
		Supervisor	ABIKO	Satoko	
		Supervisor	NODA	Kazuhiko	
		Supervisor	KYUNO	Kentaro	
		Supervisor	SHIMOJO	Masayuki	
		Supervisor	MATSUMURA	Kazunari	
		Supervisor	IMABAYASHI	Shinichiro	
		Supervisor	YOSHIMI	Yasuo	
		Supervisor	NOMURA	Mikihiro	
		Supervisor	KITAGAWA	Osamu	
		Supervisor	NAKAMURA	Asao	
		Supervisor	MASADOME	Takashi	
		Supervisor	YAMASHITA	Mitsuo	
		Supervisor	HAMASAKI	Keita	
		Supervisor	HORI	Akiko	
		Supervisor	TANGE	Manabu	
		Supervisor	YAMAMOTO	Sota	
		Supervisor	ONO	Naoki	
		Supervisor	NAKAMURA	Hitoshi	
		Supervisor	HASEGAWA	Hiroshi	
		Supervisor	ITO	Kazuhisa	
		Supervisor	CHEN	XINKAI	
		Supervisor	ITO	Toshio	
		Supervisor	WATANABE	Nobuo	
		Supervisor	HANAFUSA	Akihiko	
		Supervisor	YAMAMOTO	Shinichirou	

＜Global Course of Engineering and Science＞

Department･Research Guidance･Supervisor

Department	Research Guidance	Supervisor			Remarks
Advanced Science and Innovative Engineering	Advanced Science and Innovative Engineering	Supervisor	ZHAI	GUISHENG	
		Supervisor	NAKAMURA	Hiroyuki	
		Supervisor	HOSOYA	Naoki	
		Supervisor	SUWA	Yoshihide	
		Supervisor	KIMIJIMA	Shinji	
		Supervisor	PAOLO	MELE	
		Supervisor	THOMAS	SILVERSTON	
		Supervisor	FRONZI	MARCO	
		Supervisor	CETINKAYA	AHMET	
		Supervisor	KIMIJIMA	Shinji	
		Supervisor	SUWA	Yoshihide	
		Supervisor	ARAI	Tsuyoshi	
		Co-Supervisor	HIDAKA	Kyoko	
		Co-Supervisor	ALICJA	KLIMKOWICZ	
		Co-Supervisor	PHAN XUAN	TAN	
		Co-Supervisor	YASMIN	BHATTACHARYA	

＜Global Course of Engineering and Science＞

Subject･Lecturer Professor･Number of Credits･Semester

Subject	Credits	Semester				Lecturer Professor	Course in English	Note
		Spring		Fall				
		1Q	2Q	3Q	4Q			
Advanced Science and Innovative Engineering	2	○				MIRYALA MURALIDHAR YAMAMOTO Ayako RZEZNICKA IZABELA IRENA NICODIMUS RETDIAN	○	Compulsory
Overseas Research Project	2	○				RZEZNICKA IZABELA IRENA MIRYALA MURALIDHAR	○	Compulsory
Advanced Materials Science	2			○		TAKASAKI Akito	○	
Ubiquitous Computing System	2			○		KAMIOKA Eiji PHAN XUAN TAN	○	
Spatial Planning for Disaster Risk Reduction	2	○				NAKAMURA Hitoshi YASMIN BHATTACHARYA	○	
Data Communication Network	2			○		MIYOSHI Takumi	○	
High － Pressure Science	2		○			YAMAMOTO Ayako	○	
Material Science for Engineering	2		○			YAMAMOTO Ayako	○	
Structural Chemistry	2			○		YAMAMOTO Ayako	○	
Materials for Energy and Environment	2			○		MIRYALA MURALIDHAR	○	
How to Write and Publish a Scientific Paper at International Journals	2	○				MIRYALA MURALIDHAR	○	
Advances in Superconducting Cable Technology and its Applications	2			○		MIRYALA MURALIDHAR	○	
Superconducting materials : Synthesis and Characterization	2	○				MIRYALA MURALIDHAR	○	
General and Sustainable Chemistry	2	○				RZEZNICKA IZABELA IRENA	○	
Basic Molecular Spectroscopy	2		○			RZEZNICKA IZABELA IRENA	○	
Advanced Spectroscopy	2				○	RZEZNICKA IZABELA IRENA	○	
Vacuum Technology and Surface Analysis	2				○	RZEZNICKA IZABELA IRENA	○	
Electronic Circuits and Systems	2	○				NICODIMUS RETDIAN	○	
Mathematics for Electrical and Electronics Engineering	2	○				NICODIMUS RETDIAN	○	
Intensive course on Integrated Circuits Analysis and Design 1	2		○			NICODIMUS RETDIAN	○	
Intensive course on Integrated Circuits Analysis and Design 2	2				○	NICODIMUS RETDIAN	○	
Future Internet	2			○		THOMAS SILVERSTON	○	
Multimedia Technology	2				○	PHAN XUAN TAN	○	
Materials Characterization Methods	2		○			ALICJA KLIMKOWICZ	○	
Science of cooking	2	○				PAOLO MELE	○	
Computational Methods for Materials Science	2				○	FRONZI MARCO	○	
Stochastic Systems for Control and Machine Learning	2			○		CETINKAYA AHMET	○	

＜Global Course of Engineering and Science＞

Subject･Lecturer Professor･Number of Credits･Semester

Subject	Credits	Semester				Lecturer Professor	Course in English	Note
		Spring		Fall				
		1Q	2Q	3Q	4Q			
Microscale Fluid Mechanics	2			○		ONO Naoki	○	
Biomechanics & Injury Prevention	2		○			YAMAMOTO Sota	○	
Chemical Biology	2		○			HAMASAKI Keita	○	
Environmental Analytical Chemistry	2		○			MASADOME Takashi	○	
Biomedical Technology Based on Chemical Engineering	2			○		YOSHIMI Yasuo	○	
Energy and Water Treatment Based on Chemical Engineering	2			○		NOMURA Mikihiro	○	
Basic Electrochemistry	2			○		IMABAYASHI Shinichiro	○	
Organic Stereochemistry	2			○		KITAGAWA Osamu	○	
Life Science	2			○		YAMASHITA Mitsuo	○	
Bioorganic Photochemistry	2			○		NAKAMURA Asao	○	
Advanced Power System	2		○			FUJITA Goro	○	
Autonomous Mobile Robot System	2		○			ANDOU Yoshinobu	○	
Advanced Quantum－Beam Applications	2		○			NISHIKAWA Hiroyuki	○	
Electric Power Control	2		○			TAKAMI Hiroshi	○	
Wireless Communications Network	2		○			GYODA Koichi	○	
Advanced Electronic Circuit	2			○		KOIKE Yoshikazu	○	
Nano Devices and Materials	2	○				UENO Kazuyoshi	○	
Epitaxial Semiconductor Materials	2		○			ISHIKAWA Hiroyasu	○	
Optical Fiber Engineering	2			○		YOKOI Hideki	○	
Robot Task & System	2			○		YOSHIMI Takashi	○	
Topics in Data Engineering	2			○		KIMURA Masaomi	○	
Advanced Computer Architecture	2			○		USAMI Kimiyoshi	○	
Advanced Antenna Engineering	2		○			HIROSE Kazuhide	○	
Advanced Neural Engineering	2			○		KANOH Shinichiro	○	
gPBL in Europe	2	Contact the instructor in charge of the class about the timing and registration.				SUZUKI Shunji NAKAMURA Hitoshi	○	
Neurophysiology and Rehabilitation Engineering	2		○			YAMAMOTO Shinichirou	○	
Welfare Engineering	2			○		HANAFUSA Akihiko	○	
Control Systems Engineering	2	○				CHEN XINKAI	○	
Advanced Robust Control	1	No classes in 2022				ZHAI GUISHENG	○	
Advanced Digital Control	2		○			ZHAI GUISHENG	○	
Engineering Optimization	2		○			HASEGAWA Hiroshi	○	
Adaptive and Optimal Control	2		○			ITO Kazuhisa	○	
Methods in Bio－inspired Nanomaterial Science	2		○			MATSUMURA Kazunari	○	
Materials Chemistry	2				○	NODA Kazuhiko	○	

＜Global Course of Engineering and Science＞

Subject･Lecturer Professor･Number of Credits･Semester

Subject	Credits	Semester				Lecturer Professor	Course in English	Note
		Spring		Fall				
		1Q	2Q	3Q	4Q			
Thin Film Physics	2	○				KYUNO Kentaro	○	
Basic Physics in Electron Microscopy	2	○				SHIMOJO Masayuki	○	
Advanced Driver Assistance Systems	2			○		ITO Toshio	○	
Experimental Thermo－fluid Engineering	2	○				TANGE Manabu	○	
Mobile Communication Networks	2	○				MORINO Hiroaki	○	
Advanced Biofluid Engineering	2		○			WATANABE Nobuo	○	
Urban and Regional Development in Information Age	2			○		NAKAMURA Hiroyuki	○	
Advanced Structural Dynamics	1	○				HOSOYA Naoki	○	
Space Robotics	2	○				ABIKO Satoko	○	
Advanced Seminar in Advertising Design	2	○				HIDAKA Kyoko	○	
Self-Assembles for Crystal Engineering	2			○		HORI Akiko	○	
Advanced Applications of Fluid Engineering	2	○				SUWA Yoshihide	○	

＜Civil Engineering＞

Department･Research Guidance･Supervisor

Department	Research Guidance	Supervisor		Remarks
Social Infrastructure Facilities	Structural Engineering	Supervisor	KONNO Katsuaki	
		Supervisor	ANAMI Kengo	
	Composite Materials	Supervisor	IYODA Takeshi	
	Concrete Structure	Supervisor	KATSUKI Futoshi	
	Geotechnical Engineering	Supervisor	NAMIKAWA Tsutomu	
		Supervisor	INAZUMI Shinya	
	Social Infrastructure Management	Supervisor	HENRY MICHAEL WARD	
Regional and Environmental Planning	Hydro-Engineering	Supervisor	MIYAMOTO Hitoshi	
		Supervisor	HIRABAYASHI Yukiko	
	Spatial Information Engineering	Supervisor	NAKAGAWA Masafumi	
	Planning of Ecoinfrastructure Systems	Supervisor	KURISHIMA Hideaki	
		Supervisor	YATAGAWA Rumi	
	Infrastructure Planning	Supervisor	IWAKURA Seiji	
		Supervisor	LE YIPING	
	Urban Science and Design	Supervisor	OYAMA Yuki	
	Research on mathematical programming	Supervisor	MAKISHITA Hideyo	
	Information and Regional Development	Supervisor	NAKAMURA Hiroyuki	

＜Civil Engineering＞

Subject･Lecturer Professor･Number of Credits･Semester

Subject	Credits	Semester				Lecturer Professor	Course in English	Note
		Spring		Fall				
		1Q	2Q	3Q	4Q			
Lectures on Civil Engineering	2			○		HENRY MICHAEL WARD OYAMA Yuki LE YIPING ANAMI Kengo IYODA Takeshi KONNO Katsuaki NAMIKAWA Tsutomu MIYAMOTO Hitoshi IWAKURA Seiji NAKAGAWA Masafumi INAZUMI Shinya HIRABAYASHI Yukiko	○	
Global PBL for Infrastructures	2	Intensive class				INAZUMI Shinya	○	
Urban and Regional Development in Information Age	2			○		NAKAMURA Hiroyuki	○	
Geotechnical Engineering	2			○		NAMIKAWA Tsutomu	○	
Environmental Geotechnics	2	○				INAZUMI Shinya	○	
Durability Design for Steel Structures	2	○				ANAMI Kengo	○	
Science of Concrete Material	2			○		IYODA Takeshi	○	
Environmental Hydraulics	2				○	MIYAMOTO Hitoshi	○	
Hydrology and Water Resources	2			○		HIRABAYASHI Yukiko	○	
Principles of Sustainable Development for Engineers	2			○		HENRY MICHAEL WARD	○	

＜Architecture and Architectural Engineering＞

Department･Research Guidance･Supervisor

Department	Research Guidance	Supervisor			Remarks
Architectural Plannning	※ Architectural Planning	Supervisor	KOSUGE	Ruka	
	※ Advanced Study of Housing and Environmental Design	Supervisor	SHIMIZU	Ikuro	
Architectural Design	※ Architectural Design	Supervisor	NISHIZAWA	Taira	
		Supervisor	GOTA	Osami	
		Supervisor	HARADA	Masahiro	
		Supervisor	INOKUMA	Jun	
		Supervisor	KOBANAWA	Yoshihide	
		Co-Supervisor	TOM	HENEGHAN	
	※ Architectural Design Information	Supervisor	SAWADA	Hideyuki	
		Co-Supervisor	YAMAZAKI	Kazuya	
	※ Spatial Planning and Design	Supervisor	TANIGUCHI	Taizo	
		Supervisor	MATSUSHITA	Kiwa	
	※ Project Design	Supervisor	YAMASHIRO	Satoru	
		Supervisor	OKANO	Michiko	
Architectural History	※ History of Architecture	Supervisor	OKAZAKI	Rumi	
		Co-Supervisor	OGASHIWA	Norika	
Environmental Engineering	Building Environmental Engineering	Supervisor	NISHIMURA	Naoya	
		Supervisor	AKIMOTO	Takashi	
		Co-Supervisor	TSUSHIMA	Sayana	
		Co-Supervisor	YOKOYAMA	Keizo	
	Urban Environmental Engineering Exercise	Supervisor	MURAKAMI	Kimiya	
		Supervisor	KURISHIMA	Hideaki	
		Supervisor	MASUDA	Yukihiro	
		Supervisor	NAKAGUCHI	Takahiro	
Building Structure	Building Structure	Supervisor	KUMAZAWA	Fumitoshi	
		Supervisor	KABAYAMA	Kenji	
	Earthquake Disaster Mitigation of Buildings	Supervisor	KISHIDA	Shinji	
	Structural Planning of Buildings	Supervisor	OZAWA	Yuki	
	Research of Architectural and Structural Systems	Supervisor	ISHIKAWA	Yuji	
	Steel building structure	Supervisor	ASADA	Hayato	
Industrial Engineering	Building Materials and Operations	Supervisor	HAMASAKI	Hitoshi	
		Supervisor	KOGA	Junko	
	※ Construction Management	Supervisor	KANISAWA	Hirotake	
		Supervisor	SHIDE	Kazuya	
City Planning	※ City Planning	Supervisor	SHIMURA	Hideaki	
		Supervisor	SATO	Hirosuke	
		Supervisor	KUWATA	Hitoshi	
		Supervisor	SAKUYAMA	Yasushi	
	※ Environmental Design	Supervisor	SHINOZAKI	Michihiko	
		Supervisor	SUZUKI	Shunji	
		Supervisor	MAEDA	Hidetoshi	

※Research Guidance that marked as ※ includes only Special Exercises (12 credits)

＜Architecture and Architectural Engineering＞

Subject･Lecturer Professor･Number of Credits･Semester

Subject	Credits	Semester				Lecturer Professor	Course in English	Note
		Spring		Fall				
		1Q	2Q	3Q	4Q			
Housing and Environmental Design	2			○		SHIMIZU Ikuro	○	
History of architecture and urban design	2	○				OKAZAKI Rumi OGASHIWA Norika	○	
gPBL in Europe	2	Contact the instructor in charge of the class about the timing and registration.				SUZUKI Shunji	○	
Architectural Environment Planning	2			○		NISHIZAWA Taira KOBANAWA Yoshihide	○	
Architectural Planning and Project Design	2			○		YAMASHIRO Satoru MATSUSHITA Kiwa	○	
Exchange program with ENSAPB （a）	2	Contact the instructor in charge of the class about the timing and registration.				OKAZAKI Rumi	○	Inbound
Exchange program with ENSAPB （b）	2					OKAZAKI Rumi	○	Outbound
Exchange program with Hanyang University （ a ）	2					KUWATA Hitoshi	○	Inbound
Exchange program with Hanyang University （ b ）	2					KUWATA Hitoshi	○	Outbound
Exchange program with MARHI （a）	2					NISHIZAWA Taira KAIHOH Kei	○	Inbound
Exchange program with MARHI （b）	2					NISHIZAWA Taira	○	Outbound
Heating Ventilation and Air Conditioning	2			○		MURAKAMI Kimiya AKIMOTO Takashi TSUSHIMA Sayana	○	
Urban and Community Design	2			○		SHINOZAKI Michihiko SHIMURA Hideaki MAEDA Hidetoshi	○	
Placemaking Studies	2	○				SUZUKI Shunji	○	
Advanced Structural Systems	2			○		ISHIKAWA Yuji	○	
Urban Environmental System Planning	2			○		MASUDA Yukihiro	○	
Engineering for building construction and structures	2	○				OZAWA Yuki KISHIDA Shinji ASADA Hayato KUMAZAWA Fumitoshi KABAYAMA Kenji ISHIKAWA Yuji HAMASAKI Hitoshi KOGA Junko KANISAWA Hirotake SHIDE Kazuya	○	
Architectural planning and design	2			○		KOSUGE Ruka	○	

＜Sub-Major Program Subjects＞

Subject･Lecturer Professor･Number of Credits･Semester

Subject	Credits	Semester				Lecturer Professor	Course in English	Note
		Spring		Fall				
		1Q	2Q	3Q	4Q			
Introduction to Management for Engineers	2			○		KATO Kyoko	○	
International Marketing	2				○	HASEGAWA Yutaka	○	
Management of Innovation	2			○		HASEGAWA Yutaka	○	
Management of Intellectual Property	2			○		TANAKA Hideho	○	
International Production Management	2			○	○	HIRATA Sadayo	○	
Global Engineering Management	2			○		SAKAI Naomichi	○	
Intensive Workshop	2			○		SAKAI Naomichi	○	
Global Internship	2	○				RZEZNICKA IZABELA IRENA	○	

* From any of the above subjects, only up to 4 credits for 2 subjects could be included in the Requirement of Completion.

* For students of Global Course of Engineering and Science, no limitation on number of credits for the Requirement of Completion.

＜Common Subjects＞

Subject･Lecturer Professor･Number of Credits･Semester

Subject	Credits	Semester				Lecturer Professor	Course in English	Note
		Spring		Fall				
		1Q	2Q	3Q	4Q			
Course Design and Teaching				○		Undecided	○	
Advanced Global PBL	2	○				NAKAMURA Hitoshi	○	
Advanced Global PBL Ⅱ	2	○				NAKAMURA Hitoshi	○	
Advanced Internship	2	○				NAKAMURA Hitoshi	○	
Advanced Internship Ⅱ	2	○				NAKAMURA Hitoshi	○	
Japanese Language Ⅰ	2	○		○		HANNYA Yoko	Only forInternationalstudents	Cannot be includedin Completion Requirement
Japanese Language Ⅱ	2	○		○		INOUE Shoko JEONG MIJEONG	Only forInternational students	Cannot be includedin Completion Requirement
Japanese Language Ⅲ	2	○		○		INOUE Shoko JEONG MIJEONG	Only forInternational students	Cannot be includedin Completion Requirement
Japanese Language Ⅳ	2	○		○		INOUE Shoko	Only forInternational students	Cannot be includedin Completion Requirement

Subject Assignment List

-Doctor’ｓ Course-

＜Regional Environment Systems＞

Research Guidance Field・Research Guidance Subject and Supervisor

Field	Research Guidance Subject	Supervisor	Remarks
Regional Environment Planning	Regional Environment Planning（ Research Guidance）	NAKAMURA Hitoshi	
		INAZUMI Shinya	
		SHINOZAKI Michihiko	
		MURAKAMI Kimiya	
		IWAKURA Seiji	
		NISHIMURA Naoya	
		SHIMURA Hideaki	
		KANISAWA Hirotake	
		AKIMOTO Takashi	
		NAKAGUCHI Takahiro	
		KUWATA Hitoshi	
		KABAYAMA Kenji	
		MATSUSHITA Kiwa	
		TANIGUCHI Taizo	
		MAEDA Hidetoshi	
		NAMIKAWA Tsutomu	
		GOTA Osami	
		SHIMIZU Ikuro	
		SAWADA Hideyuki	
		YAMASHIRO Satoru	
		HARADA Masahiro	
		NISHIZAWA Taira	
		KURISHIMA Hideaki	
		MIYAMOTO Hitoshi	
		NAKAGAWA Masafumi	
		SATO Hirosuke	
		SAKUYAMA Yasushi	
		SHIDE Kazuya	
		MASUDA Yukihiro	
		SUZUKI Shunji	
		IWATA Tomoko	
		HIRABAYASHI Yukiko	
		SODENO Reiko	
		INOKUMA Jun	
		KOBANAWA Yoshihide	
		OKAZAKI Rumi	
		LE YIPING	
		OYAMA Yuki	
		OKANO Michiko	
		KOSUGE Ruka	

＜Regional Environment Systems＞

Research Guidance Field・Research Guidance Subject and Supervisor

Field	Research Guidance Subject	Supervisor	Remarks
Environmental Materials Engineering	Environmental Materials Engineering（ Research Guidance)	TAKASAKI Akito	
		MASADOME Takashi	
		NAKAMURA Asao	
		IMABAYASHI Shinichiro	
		NODA Kazuhiko	
		NAGA Naofumi	
		YAMASHITA Mitsuo	
		KITAGAWA Osamu	
		MATSUMURA Kazunari	
		KARIYA Yoshiharu	
		NOMURA Mikihiro	
		KOGA Junko	
		ARAI Tsuyoshi	
		KIDOWAKI Masatoshi	
		KIYONO Hajime	
		TAJIMA Toshiki	
		HATANO Akihiko	
		KONISHI Toshifumi	
		SAKAUE Kenichi	
		HASHIMURA Shinji	
		UTSUNOMIYA Takao	
		MIRYALA MURALIDHAR	
		YAMAMOTO Ayako	
		HORI Akiko	
		HAMASAKI Hitoshi	
		SAKAI Naomichi	
		IKEGAMI Daisuke	
		PAOLO MELE	
		RZEZNICKA IZABELA IRENA	
		WATANABE Yoshimasa	
		FRONZI MARCO	
		OGUCHI Hiroyuki	
		GARY JAMES RICHARDS	
		ENDO Rie	
Energy and Environmental Engineering	Energy and Environmental Engineering（ Research Guidance）	NISHIKAWA Hiroyuki	
		YAHAGI Yuji	
		YAMADA Jun	
		TSUNODA Kazumi	
		TANAKA Kotaro	
		FUJITA Goro	
		ONO Naoki	

＜Regional Environment Systems＞

Research Guidance Field・Research Guidance Subject and Supervisor

Field	Research Guidance Subject	Supervisor	Remarks
Energy and Environmental Engineering	Energy and Environmental Engineering （ Research Guidance）	KIMIJIMA Shinji	
		SAITO Hiroyasu	
		TANGE Manabu	
		SUWA Yoshihide	
		ISHII Yasuyuki	
		RAJAGOPALAN UMAMAHESWARI	
		SHIRAI Katsuaki	
Environmental Disaster Prevention	Environmental Disaster Prevention （ Research Guidance）	KATSUKI Futoshi	
		KUMAZAWA Fumitoshi	
		KONNO Katsuaki	
		ANAMI Kengo	
		KISHIDA Shinji	
		IYODA Takeshi	
		ISHIKAWA Yuji	
		OZAWA Yuki	
		HENRY MICHAEL WARD	
		ASADA Hayato	
Tip Management Engineering	Tip Management Engineering （ Research Guidance）	TANAKA Hideho	
		HIRATA Sadayo	

＜Functional Control Systems＞

Research Guidance, Field・Research Guidance Subject and Supervisor

Field	Research Guidance Subject	Supervisor	Remarks
Communication Function Control Engineering	Communication Function Control Engineering （Research Guidance）	WATANABE Eiji	
		MIYATA Sumiko	
		TAKAHASHI Masanobu	
		SAITOH Atsushi	
		MIYOSHI Takumi	
		YOSHIDA Kenji	
		KAMIOKA Eiji	
		HIROSE Kazuhide	
		KANZAWA Yuuchi	
		TANAKA Naohiko	
		TANAKA Shinichi	
		MUTO Kenji	
		KUBOTA Aya	
		MORINO Hiroaki	
		GYODA Koichi	
		YASUMURA Yoshiaki	
		YAMAZAKI Kenichi	
		MATSUDA Haruhide	
		MANO Kazunori	
		HORIE Ryota	
		KIMURA Gen	
		NICODIMUS RETDIAN	
		IOKA Eri	
		YAMAZAKI Taku	
		THOMAS SILVERSTON	
		OHASHI Yutaro	
		MAEDA Kengo	
		HISAZUMI Kenji	
		GOTO Yusuke	
		HOSAKA Ryosuke	
Function Device Engineering	Function Device Engineering （Research Guidance）	NAGAYAMA Katsuhisa	
		HOMMA Tetsuya	
		KOIKE Yoshikazu	
		YOKOI Hideki	
		YAMAGUCHI Masaki	
		KYUNO Kentaro	
		MASAKI Tadahiko	
		UENO Kazuyoshi	
		AOKI Koushirou	
		ISHIKAWA Hiroyasu	
		SASAKI Masahiro	
		SHIMOJO Masayuki	
		YUMOTO Atsushi	
		ISHIZAKI Takahiro	
		HASHIDA Noriko	
		YOSHITAKE Ryoji	
		YANG WONSEOK	
		SERIZAWA Ai	
		MATSUO Shigeki	
		MAEDA Tadashi	
		TOMITA Yusuke	

＜Functional Control Systems＞

Research Guidance, Field・Research Guidance Subject and Supervisor

Field	Research Guidance Subject	Supervisor	Remarks
Function Device Engineering	Function Device Engineering （Research Guidance）	PREMACHANDRA CHINTHAKA	
		SHIGEMUNE Hiroki	
		ASHIZAWA Yusuke	
System Control Engineering	Advanced Research Program on Systems Control Engineering （Research Guidance ）	MURAKAMI Kayoko	
		YOSHIHARA Shouichirou	
		KAWAKAMI Yukio	
		USAMI Kimiyoshi	
		CHEN XINKAI	
		YAMAMOTO Shinichirou	
		SUGIMOTO Tooru	
		ADACHI Yoshitaka	
		TAKAMI Hiroshi	
		HASEGAWA Hiroshi	
		HASEGAWA Tadahiro	
		SHIMADA Akira	
		KASUGA Nobuyo	
		SAEKI Masato	
		ICHIKAWA Manabu	
		ITO Kazuhisa	
		UCHIMURA Yutaka	
		KIMURA Masaomi	
		YOSHIMI Takashi	
		FUKUDA Hiroaki	
		ANDOU Yoshinobu	
		HOSOYA Naoki	
		MUTO Masayoshi	
		KOYAMA Yusuke	
		FUKUDA Akiko	
		KAMEKO Masaki	
		ZHAI GUISHENG	
		SUZUKI Tatsuo	
		TAKEUCHI Shingo	
		ISHIWATA Tetsuya	
		YONEMURA Shunichi	
		SUGAYA Midori	
		ITO Toshio	
		OZAKI Katsuhisa	
		IJIRI Takashi	
		SHIMIZU Sota	
		NAGASAWA Sumito	
		SAWA Takekazu	
		YAMAZAWA Hiroshi	
		ABIKO Satoko	
		NAKAJIMA Tsuyoshi	
		NODA Natsuko	
		HIROSE Toshiya	
		IIZUKA Kojiro	
		MAKISHITA Hideyo	
		SHIMIZU Kenichi	
		SAKAKIBARA Nobuhisa	
		MATSUBARA Ryota	

＜Functional Control Systems＞

Research Guidance, Field・Research Guidance Subject and Supervisor

Field	Research Guidance Subject	Supervisor	Remarks
System Control Engineering	Advanced Research Program on Systems Control Engineering （Research Guidance）	ISHIZAKI Satoshi	
		MANABE Hiroyuki	
		FUJITA Goro	
		SASANO Isao	
		TANABE Tadao	
		HIROSE Sampei	
		KAWASHIMA Rei	
		SHINKUMA Ryouichi	
		YOSHIDA Shinya	
		HAYABUSA Keisuke	
		SAKAI Yasunori	
		WATANABE Dai	
		CETINKAYA AHMET	
Life Function Control Engineering	Life Function Control Engineering （Research Guidance）	YOSHIMI Yasuo	
		HAMASAKI Keita	
		HANAFUSA Akihiko	
		YAMAMOTO Sota	
		OSAKABE Naomi	
		FUKUI Koji	
		FUSE Hiroyuki	
		SUHARA Yoshitomo	
		SATOU Hiroki	
		WATANABE Nobuo	
		KANOH Shinichiro	
		YOSHIMURA Kenjiro	
		FUTAI Nobuyuki	
		AKAGI Ryota	
		HIROTA Yoshihisa	
		YATABE Kiyomi	
		YAJIMA Ichiro	
		NAKAMURA Naoko	
		TOMA Koji	
		AZHAM ZULKHARNAIN	
		TAKAGI Motoki	