AY 2024

Graduate school of Engineering Enrollment Guidelines

Master’s programs

Doctoral programs

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Please refer to Sentan Navi for the school regulations, school fee regulations, degree regulations, and student disciplinary regulations.

2024 Academic Year Calendar

<<Fall Semester>>

September 20 (Fri)	Fall Semester begins
September 23 (Mon) October 14 (Mon) November 4 (Mon)	Classes will be held despite the national holiday
October 26 (Sat) - 27 (Sun)	School Festival (Ryubi-sai)
December 24 (Tue) - January 5 (Sun)	Winter Vacation
January 17 (Fri)	Last day of Fall Semester
March 31 (Thu)	School Year Ends

∗ October 25: Classes will be canceled in order to prepare for the School Festival

∗ “Intensive lectures” may be held in addition to regular classes.

[Educational Affairs Center (Engineering)] (South Building, 1st floor)

< Hours> 8:30 - 17:00

The above schedule applies as a general rule, but may change in some cases. The school is closed on Saturdays, Sundays, national holidays, during entrance examinations, summer and winter vacation, and New Year holidays.

Education Policies for the Master's and Doctoral Programs at the Graduate School of Engineering

1. Educational Objectives

To develop engineers and researchers who can contribute to the creation of next-generation industries and the creation of new value through the acquisition of and deepening of interest in a global society. Students should obtain advanced, expert knowledge associated with the specialized fields essential for next-generation electromechanical systems.

2. The Three Policies [Diploma Policy]

Master's Program

For the “Master of Engineering” degree to be granted, Master’s Program students are required to study for the designated period, take subjects prescribed by the Master’s Program established in accordance with the Graduate School of Engineering Curriculum Policy, obtain the designated number of credits (34 credits), and pass a review and examination of their master’s thesis. The review and examination of their Master’s thesis will be based on whether students have achieved the following:

1. The student has acquired a deep knowledge while relating their own research to other fields, and can utilize this knowledge to solve problems in a global society while focusing on any of the fields of "Materials", "Energy", "Information", or "Systems", within the scope of mechanical and electrical systems engineering.
2. The student is able to collect the necessary information on the research topic they have independently established using the appropriate methods, such as literature research and experiments, with a focus on any of the fields of "Materials", "Energy", "Information", or "Systems" which constitute the field of mechanical and electrical systems engineering. Then, they must use this information while correlating it with knowledge of other fields and logically, critically, and objectively analyzing the outcomes.
3. The student possesses a deep knowledge of the field of mechanical and electrical systems engineering and can discuss these topics with others in English.
4. The student can logically construct and express their own ideas through a multi-perspective approach utilizing the deep knowledge, skills, and experience acquired in any field of mechanical and electrical systems engineering.

Doctoral Program

For the “Doctor of Engineering” degree to be granted, Doctoral Program students are required to study for the designated period, take subjects prescribed by the Doctoral Program established in accordance with the Graduate School of Engineering Curriculum Policy, obtain the designated number of credits (36 credits), and pass a review and examination of their doctoral thesis. The review and examination of their Doctoral thesis will be based on whether students have achieved the following:

1. The student has further specialized their knowledge in one of the fields of "Materials", "Energy", "Information", or "Systems", in the field of mechanical and electrical systems engineering, as well an in-

depth knowledge of the other 3 fields. They should be able to utilize that knowledge to solve the problems faced by global society while correlating the 4 fields in an integrated, comprehensive manner.

2. The student is able to collect necessary information using appropriate methods such as literature research and experiments in relation to the research topic they have set for themselves, and should be able to utilize the knowledge they have specialized in any of the 4 fields ("Materials", "Energy", "Information", or "Systems") in an integrated way with the other 3 fields to concretely identify problems through objective analysis and logical and critical considerations, then creatively achieve solutions to those problems in the general field of mechanical and electrical systems engineering.
3. The student can express their opinions and discuss them with others in English using the deep knowledge they have obtained in the field of mechanical and electrical systems engineering.
4. The student can logically construct and express their own ideas through a multi-perspective approach by utilizing their knowledge, skills, and experience in the field of mechanical and electrical systems engineering.

[Curriculum Policy]

Master's Program

In order to develop graduates with the capabilities listed in the Diploma Policy, the educational program will be implemented based on the following policies:

1. This course aims to cultivate students' ability to explore truth from various angles in relation to knowledge in other fields by allowing them to undertake core courses and advanced courses related to advanced specialization, mainly associated with either "Materials", "Energy", "Information", or "Systems" in mechanical and electrical systems engineering.
2. Students will be able to develop independent abilities to take action and solve problems based on expert knowledge through Advanced Exercise and Research courses related to their research fields centered on the fields of "Materials", "Energy", "Information", or "Systems" which constitute mechanical and electrical systems engineering.
3. Students will undertake Scientific English courses and develop their communication skills related to their specialized field, such as oral presentations in English, reading documents, writing papers, and critically evaluating papers.
4. In parallel with the undertaking of Scientific English courses, core courses, and advanced courses for the development of specialized knowledge, students will learn in Advanced Exercise and Research courses linked to the development of communication, collaboration, problem-finding, and leadership skills.

Doctoral Program

In order to develop graduates with the capabilities listed in the Diploma Policy, the educational program will be implemented based on the following policies:

1. Students will be required to acquire advanced expertise in the 4 fields of mechanical and electrical systems engineering: "Materials", "Energy", "Information", and "Systems", and develop the ability to explore truths from multiple angles through comprehensive scholarship that integrates the 4 fields.
2. Students will study one field of expertise in depth while simultaneously deepening their knowledge in the 3 related fields to acquire the ability to independently identify and creatively solve issues based through Advanced Exercise and Research courses related to the field of mechanical and electrical systems engineering.
3. Students will undertake Scientific English courses and develop their communication skills related to their specialized field, such as oral presentations in English, reading documents, writing papers, and critically evaluating papers.
4. In parallel with the undertaking of Scientific English courses and specialized courses in mechanical and electrical systems engineering for the development of specialized knowledge, students will learn in Advanced Exercise and Research courses linked to the development of communication, collaboration, problem finding, and leadership skills.

[Admission Policy]

Master's Program

Enrollees to the Master's Program should be graduate students from a 4-year or more undergraduate course who understand the content of the Graduate School's curriculum. They should have basic engineering skills and understand how to use basic engineering techniques to solve problems and apply cutting-edge technologies. Additionally, they should have the ability to play an active role in the international community by proactively tackling issues that enrich society while considering the global environment. Additionally, enrollees should be individuals who:

1. Wish to tackle issues that will benefit future global society;
2. Possess basic knowledge in related fields to both mechanical engineering and electrical engineering or the fields of mechanical and electrical systems engineering; and
3. Wish to approach related fields to both mechanical engineering and electrical engineering or the fields of mechanical and electrical systems engineering from scientific and academic viewpoints, and challenge issues by gaining deeper expertise.

Doctoral Program

Enrollees to the Doctoral Program should be individuals who have the ability to lead a more systematic and multifaceted approach to problem-solving by further enhancing the technical foundation and research abilities they cultivated during their master's Program studies, thereby improving their comprehensive understanding of science and technology systems and their ability to interpret and transmit new information. Additionally, enrollees should be individuals who:

1. Wish to tackle issues that will benefit future global society;
2. Possess a master's degree or equivalent academic certification and have specialized knowledge in related fields to both mechanical engineering and electrical engineering or the fields of mechanical and electrical systems engineering.
3. Are willing to approach related fields to both mechanical engineering and electrical engineering or the fields of mechanical and electrical systems engineering from scientific and academic viewpoints, deepen their expertise, and challenge complex and multifaceted problems.

Objectives and Characteristics of Education and Research at the Graduate School of Engineering

1. Educational and Research Goals

The purpose of the Graduate School's programs is to provide engineering and research knowledge to scholars who possess exceptional problem-identifying abilities that take into account the trends of various academic fields and social needs. Furthermore, the programs seek to impart advanced knowledge in specialized fields which will be indispensable for the creation of the next generation of mechanical and electrical systems, as well as the creation of next-generation industries and concepts leading to "new value". In addition, "ORT" (On-the-Research Training) will be provided in cutting-edge research facilities led by internationally renowned academics.

In the Master's Program, students will acquire the qualities of a professional, highly qualified engineer who can contribute to the creation of next-generation industries and "new value" by acquiring advanced knowledge in specialized fields. This knowledge is essential for next-generation mechanical and electrical systems while also connecting those initiatives in other fields. In the Master's Program, students focus on one of the 4 fields that constitute the field of mechanical and electrical systems engineering: "Materials", "Energy", "Information", or "Systems".

In the Doctoral Program, students focus on studying one of the 4 fields that constitute mechanical and electrical systems engineering: "Materials", "Energy", "Information", or "Systems". At the same time, they will deepen their knowledge of the other 3 fields, thereby broadening their understanding and increasing their high-level specialization as cross-disciplinary experts who possess exceptional problem-identifying abilities that take into account the trends of various academic fields and social needs. Through the creation of new concepts, these scholars will aim to become researchers who can contribute to the creation of next-generation industries and the creation of "new value".

2. Concepts and Characteristics of Curricula Organization

Master's Program

Based on their academic achievements in their undergraduate studies, Master's Program students will aim at achieving a high level of ethics, and expertise in one of the 4 fields of mechanical and electrical systems engineering: "Materials", "Energy", "Information", or "Systems", and a broad understanding of the other 3 fields. Master's Program courses are divided into 3 categories: "Specialized Courses", "Scientific English Courses" and "Research Activity Courses ".

(1) Specialized Courses

Specialized courses are divided into core courses and advanced courses. In both the core and advanced courses, "Materials", "Energy", "Information", or "Systems" will form the main subject, and all courses will contain content that straddles the other fields to foster multi-perspective thinking.

Core courses consist of basic specialized knowledge and consist of 6 courses: "Advanced Mechanical Electrical Systems engineering", “Physics and Chemistry of Electronic Materials”, "MEMS Technology and Materials", "Wind Power Technology", "Computer Mathematics for Graduate Engineers", and "Advanced Robotics". Advanced courses are designed to deepen students’ understanding of their area of specialization, and consist of 6 subjects: "Advanced Computational Materials Science," "Enabling Technologies of Solid-State Power Conversion," "Computer-Aided Design of Semiconductor Power Devices and Modules," "Scripting Language and Virtual Machines," "Theory of System Design", and "Remote Sensing".

(2) Scientific English Courses

"Scientific English I & II" will be established as mandatory subjects in order to develop communication skills in specialized fields such as oral presentations in English, reading of scientific papers, thesis writing, and criticism.

In "Scientific English I", which is offered in the spring semester of the first year, students will acquire presentation skills to effectively give oral presentations and express opinions. In "Scientific English II", which is offered in the fall semester of the first year, students will acquire the writing skills necessary for writing theses and scientific reports.

(3) Research Activity Courses

Subjects related to research fields are classified into Fundamental Research and Practical Research, and all subjects are compulsory. "Advanced Exercise I – IV for Master’s Program" are courses designed to help students acquire basic problem-solving skills by reading theses and acquiring specialized knowledge related to their research themes. " Advanced Research I – IV for Master’s Program" are courses in which students practice problem-solving through guidance on the preparation of a master's thesis and guidance on experiments and practical training based on their research themes.

By taking the curriculum described above, the university aims to cultivate graduates who possess a high level of expertise and broad insight that have been acquired in each field of mechanical and electrical systems engineering, and who are qualified as highly skilled engineers capable of thinking in a multifaceted manner. At the same time, the university aims to develop graduates who can combine the ability to solve goals acquired by enhancing their expertise with flexible thinking and planning ability that can respond to changes in society by acquiring broad insight.

Doctoral Program

Based on the results of studies pursued in the Master’s Program, Doctoral Program students will rapidly analyze trends in advanced academic information and advanced technology, set research subjects from a unique perspective, and aim to carry out research actively. As with the first semester of the Master’s Program, the subjects offered are divided into 3 categories: "Specialized Courses", "Scientific English Courses", and “Research Activity Courses ".

(1) Specialized Courses

Compulsory specialty subjects for the Doctoral Program will focus on either "Materials", "Energy", "Information", or "Systems" with lectures on "Advanced Lecture of Mechanical and Electrical Systems (Materials Science)", "Advanced Lecture of Mechanical and Electrical Systems (Energy Engineering)" "Advanced Lecture of Mechanical and Electrical Systems (Information Engineering)", and "Advanced Lecture of Mechanical and Electrical Systems (Systems Engineering)". In addition to delving deeply into the subject of cutting-edge topics related to advanced science and technology, this course also refers to the relationship with the other 3 fields and teaches students the ability to solve problems by interrelating the 4 fields as comprehensive parts of mechanical and electrical systems engineering. Students can also take Specialized Courses offered in the Master's Program (core and advanced courses excluding "Advanced Mechanical Electrical Systems engineering"), and acquire specialized and cutting-edge knowledge in all fields that constitute the field of mechanical and electrical systems engineering, including the field to which they belong.

(2) Scientific English Courses

"Scientific English III & IV" will be offered as compulsory subjects in order to further improve communication skills in specialized fields such as oral presentation, essay reading, essay writing, and stating opinions in English.

In "Scientific English III", which is offered in the spring semester of the first year, students will acquire presentation skills to effectively present oral presentations and express opinions at international conferences. In "Scientific English IV", which is offered in the spring semester of the second year, students will acquire the writing skills necessary for writing theses.

(3) Research Activity Courses

As in the case of the Master's Program, the subjects related to the research fields in the Doctoral Program will consist of Fundamental Research and Practical Research as compulsory subjects, and will be offered as subjects that will help students to solve their own topics of study. "Advanced Exercise I – VI for Doctoral Program" are courses to acquire problem-solving methods through reading dissertations on research themes and acquiring specialized knowledge. "Advanced Research I – VI for Doctoral Program" are courses in which advanced problem-solving is practiced through guidance on the preparation of Doctoral theses and guidance on experiments and practical training based on individual research themes.

By taking the curriculum described above, we will build a foothold for researchers who have a high level of expertise and broad insight that they have acquired in each field of mechanical and electrical systems engineering, who are qualified as highly skilled engineers who can think in multiple ways, who have a high level of expertise and problem-finding ability as a comprehensive field of mechanical and electrical systems engineering, and who can create next-generation industries and new concepts and values.

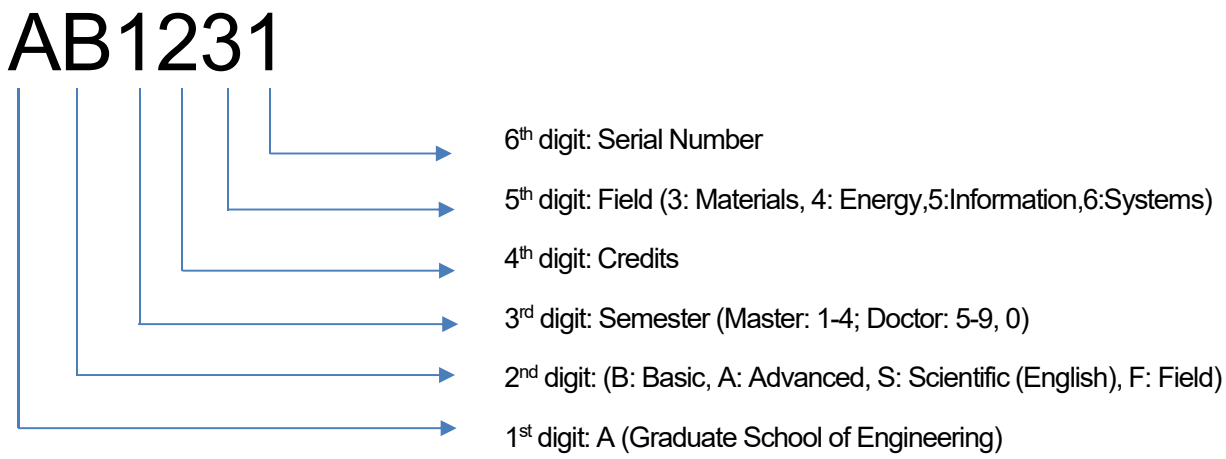
3. Course Numbering

(1) What is course numbering?

Course numbering is a system in which all courses offered by KUAS are given an appropriate number and are classified to indicate the level and order of study in order to systematize the curriculum. The "A" in front of the numbers indicates that it is a course in the Graduate School of Engineering.

(2) Course Numbering Structure

The course number consists of the following 6 alphanumeric characters.



Curriculum and Completion Requirements for Master's Program

* Master's Program Completion Requirements

Students must be enrolled in the Master's Program for at least two years, acquire at least 34 credits from the designated subjects, undergo the required research supervision, and pass a review of their master's thesis and the final examination.

Subjects		Completion Requirements
Specialized Courses	Core courses	8 credits or more from 4 subjects Including "Advanced Mechanical Electrical Systems Engineering" (compulsory)
	Advanced courses	6 credits or more from 3 subjects
Scientific English Courses		4 credits from 2 compulsory subjects
Research Activity Courses	Fundamental Research	8 credits from 4 compulsory subjects
	Practical Research	8 credits from 4 compulsory subjects
Subtotal		34 credits or more

＊ Research Guidance

Students in the Master's Program will belong to one laboratory from their first year until the completion of the Master's Program. Under the guidance of their main supervisor, students create their own research themes and prepare their master's thesis. A research supervision system shall be put in place for the supervision of master's theses, consisting of a main supervisor and several co-supervisors. Thus, the students will receive sufficient research supervision according to their research themes throughout the two years.

The main supervisor will be the research supervisor of the laboratory to which each graduate student applied at the time of admission. The co-supervisors will be selected after consideration of the master's thesis assignment set at the start of the course. Students should actively conduct research on subjects from a creative perspective under the supervision of main and co-supervisors.

*** Master subject List**

List of Master's Courses in the Department of Mechanical and Electrical Systems Engineering, Graduate School of Engineering

Category		Course Number	Course Name	Year	Credits	
					Mandatory	Elective
Specialized Courses	Core courses	AB 1201	Advanced Mechanical Electrical Systems engineering	1	2	
		AB 1231	Physics and Chemistry of Electronic Materials	1		2
		AB 2232	MEMS Technology and Materials	1		2
		AB 2241	Wind Power Technology	1		2
		AB 1251	Computer Mathematics for Graduate Engineers	1		2
		AB 1261	Advanced Robotics	1		2
	Advanced courses	AA 3233	Advanced Computational Materials Science	1		2
		AA 3242	Enabling Technologies of Solid-State Power Conversion	1		2
		AA 4243	Computer-Aided Design of Semiconductor Power Devices and Modules	1		2
		AA 4252	Scripting Languages and Virtual Machines	1		2
		AA 3262	Theory of System Design	1		2
		AA 4263	Remote Sensing	1		2
Scientific English Courses		AS 1201	Scientific English I	1	2	
		AS 2202	Scientific English II	1	2	
Research Activity Courses	Fundamental Research	AF 1201	Advanced Exercise I for Master's Program	1	2	
		AF 2202	Advanced Exercise II for Master's Program	1	2	
		AF 3203	Advanced Exercise III for Master's Program	2	2	
		AF 4204	Advanced Exercise IV for Master's Program	2	2	
	Practical Research	AF 1211	Advanced Research I for Master's Program	1	2	
		AF 2212	Advanced Research II for Master's Program	1	2	
		AF 3213	Advanced Research III for Master's Program	2	2	
		AF 4214	Advanced Research IV for Master's Program	2	2	

＊ Thesis Examination and Standards (Master's Thesis)

1 Mid-term Presentation

(1) Each graduate student must present the progress they have made on their master's thesis at the beginning of the semester they plan to complete the course at the mid-term presentation organized by the Graduate School of Engineering Committee.

(2) Graduate students who have not made a mid-term presentation cannot submit their master's thesis.

2 Thesis Submission and Review

(1) The main supervisor (faculty member who will be a chief examiner) of a graduate student who has made mid-term presentations should submit an Application for master's thesis examination (containing the title of the thesis, summary, etc., with 2 faculty members who will be assistant examiners) to the Graduate School of Engineering Committee.

(2) The Thesis Examination Committee shall consist of three members, one chief examiner and two assistant examiners who shall be elected by the Graduate School of Engineering Committee. The chief examiner shall be the main supervisor, and the two assistant examiners shall be from two of the three different fields from the chief examiner. In addition, it is also possible to select an assistant examiner from outside the university if necessary.

(3) The Thesis Examination Committee discusses the content of the Application for the master's thesis examination and judges whether or not the master's thesis can be prepared and submitted.

(4) Graduate students who are permitted to prepare and submit a master's thesis should submit a master's thesis abstract and manuscript to the Graduate School of Engineering Committee.

(5) The submitted master's thesis will be received by the Dean of the Graduate School of Engineering through discussion by the Graduate School of Engineering Committee, and will be reviewed by the Thesis Examination Committee.

3 Oral Thesis Examination

(1) Oral examinations will be conducted as the "final exam" listed in Article 8 of the Degree Rules of the University.

(2) The graduate student who has submitted the master's thesis present the research results and answer questions at the master's thesis defense. The thesis defense will be open to the public.

(3) In the master's thesis defense, an oral examination is conducted for the graduate student who has submitted the master's thesis by the chief examiner, assistant examiners, and faculty who attend the thesis defense. In the oral examination, the specialized knowledge of the graduate student is examined, as well as whether the graduate student is qualified to grant a master’s degree.

4 Determining “Passing” or “Failing”

(1) The Graduate School of Engineering Committee will determine the advisability of completing the Master’s Program after comprehensively examining the content of the master's thesis submitted, the results of thesis defense and oral examinations, and the status of credits acquired (34 units or more).

(2) The examination criteria for the master's theses in this graduate school are as follows:

- Satisfy diploma policy requirements
- Validity, novelty, and originality of research themes and problem settings
- Validity, novelty, and originality of research methods
- Validity of the paper structure
- Validity, novelty, and originality of conclusions
- Contribution to society or academic society
- Presentation of future issues and prospects
- Typography

(3) The evaluation of a master's thesis shall be “passing” or “failing”.

(4) In the course of examining master's theses, students shall be rejected if they are found to have fabricated, altered, plagiarized, or committed an inappropriate act that should be equated with any of these acts with the intent to obtain a degree in an improper manner.

(5) The Thesis Examination Committee will prepare an examination report based on the results of the judgment on the propriety of the completion of the Master’s Program and report it to the Graduate School of Engineering Committee.

(6) The Graduate School of Engineering Committee reviews the examination report and determines the conferment of a degree upon completion of the Master’s Program by a vote of 2/3 or more. The Graduate School of Engineering Committee reports the results to the President in writing and submits the degree to the President. The degree is granted by the president.

5 Retention of Examination Reports and Theses

(1) The Educational Affairs Center shall keep r examination reports prepared by the Thesis Examination Committee.

(2) One (1) master's thesis that has passed the examination shall be retained at the University Library.

Curriculum and Completion Requirements for Doctoral Program

* Doctoral Program Completion Requirements

Students must be enrolled in the Doctoral Program for at least three years, acquire at least 36 credits from the designated subjects, undergo the required research supervision, and pass a review of their doctoral thesis and the final examination.

Subjects		Completion Requirements
Specialized Courses		8 credits or more from 4 subjects incl. the 4 mandatory courses below: "Advanced Lecture of Mechanical and Electrical Systems (Materials Science)" "Advanced Lecture of Mechanical and Electrical Systems (Energy Engineering)" "Advanced Lecture of Mechanical and Electrical Systems (Information Engineering)" "Advanced Lecture of Mechanical and Electrical Systems (Systems engineering)"
Scientific English Courses		4 credits from 2 mandatory subjects
Research Activity Courses	Fundamental Research	12 credits from 6 mandatory subjects
	Practical Research	12 credits from 6 mandatory subjects
Subtotal		36 credits or more

＊ Research Guidance

Students in the Doctoral Program will belong to one laboratory from the first year to the completion of the Doctoral Program. Under the guidance of the main supervisor, students set their own research themes and prepare their doctoral theses. As with the Master's Program, the doctoral thesis will be guided by a research supervision system consisting of a main supervisor and several co-supervisors, so that students will be able to provide sufficient research supervision according to their research themes throughout the three-year period. The Doctoral Program adopts a method of learning in which students deepen their research by recognizing their goals based on the results of the Master's Program.

The main supervisor will be the research supervisor of the laboratory to which each graduate student applied at the time of admission. The co-supervisors will be selected after consideration of the doctoral thesis assignment is set at the start of the course. Students should actively conduct research on subjects from a creative perspective under the supervision of a main supervisor and co-supervisors.

Doctoral Subject List

List of Doctoral Courses in the Department of Mechanical and Electrical Systems Engineering, Graduate School of Engineering

Course Category		Course code	Course Name	Year Taken	Credits	
					Mandatory	Elective
Specialized Courses	Materials	AB 1231	Physics and Chemistry of Electronic Materials	1		2
		AB 2232	MEMS Technology and Materials	1		2
		AA 3233	Advanced Computational Materials Science	1		2
		AA 7234	Advanced Lecture of Mechanical and Electrical Systems (Materials Science)	1	2	
	Energy	AB 2241	Wind Power Technology	1		2
		AA 3242	Enabling Technologies of Solid-State Power Conversion	1		2
		AA 4243	Computer-Aided Design of Semiconductor Power Devices and Modules	1		2
		AA 7244	Advanced Lecture of Mechanical and Electrical Systems (Energy Engineering)	1	2	
	Information	AB 1251	Computer Mathematics for Graduate Engineers	1		2
		AA 4252	Scripting Languages and Virtual Machines	1		2
		AA 8254	Advanced Lecture of Mechanical and Electrical Systems (Information Engineering)	1	2	
	Systems	AB 1261	Advanced Robotics	1		2
		AA 3262	Theory of System Design	1		2
		AA 4263	Remote Sensing	1		2
		AA 8264	Advanced Lecture of Mechanical and Electrical Systems (Systems engineering)	1	2	
Scientific English Courses		AS 7203	Scientific English III	1*	2	
		AS 9204	Scientific English IV	1**	2	

Research Activity Courses	Fundamental Research	AF 5205	Advanced Exercise I for Doctoral Program	1	2	
		AF 6206	Advanced Exercise II for Doctoral Program	1	2	
		AF 7207	Advanced Exercise III for Doctoral Program	2	2	
		AF 8208	Advanced Exercise IV for Doctoral Program	2	2	
		AF 9209	Advanced Exercise V for Doctoral Program	3	2	
		AF0210	Advanced Exercise VI for Doctoral Program	3	2	
	Practical Research	AF 5215	Advanced Research I for Doctoral Program	1	2	
		AF 6216	Advanced Research II for Doctoral Program	1	2	
		AF 7217	Advanced Research III for Doctoral Program	2	2	
		AF 8218	Advanced Research IV for Doctoral Program	2	2	
		AF 9219	Advanced Research V for Doctoral Program	3	2	
		AF0220	Advanced Research VI for Doctoral Program	3	2	

*** Thesis Examination and Standards (doctoral thesis)**

1 Preliminary Examination

(1) Each graduate student submits an Application for preliminary examination (containing the title of thesis, summary, etc., 4 Preliminary Examination Committee members) to the Graduate School of Engineering Committee.

(2) The Preliminary Examination Committee consists of four members, the main supervisor and three belonging to different fields from the main supervisor.

(3) The preliminary examination shall be based on the review of the application by the supervisors of the graduate student concerned, the confirmation of the progress of the research by the Preliminary Examination Committee, and the evaluation of the research results at present.

(4) Graduate students who fail the preliminary examination cannot submit their doctoral theses.

2 Thesis Submission and Review

(1) A graduate student who has passed the preliminary examination submits an Application for doctoral thesis examination (containing the title of thesis, summary, etc., candidates of a chief examiner and four assistant examiners) to the Graduate School of Engineering Committee. The Application for doctoral thesis examination shall be addressed to the Dean of the Graduate School of Engineering and shall be in writing and signed as a document stating that the student will "write a doctoral thesis properly and not conduct research improperly". The selection of the candidate members for the chief examiner and the assistant examiners described in the Application for doctoral thesis examination requires approval from the main supervisor.

(2) The Thesis Examination Committee shall consist of five members, one chief examiner, and four assistant examiners, who shall be selected by the Graduate School of Engineering Committee with reference to the candidates submitted by the main supervisor. The chief examiner shall be a faculty member on campus. Three of the assistant examiners shall be faculty members on campus and should respectively belong to three different fields from the chief examiner, and one assistant examiner should be from outside the university. The main supervisor of the graduate student cannot be a chief examiner.

(3) The Thesis Examination Committee discusses the content of the Application for the doctoral thesis examination and judges whether or not the doctoral thesis can be prepared and submitted.

(4) The Graduate student who is permitted to prepare and submit a doctoral thesis should submit the doctoral thesis abstract and manuscript to the Graduate School of Engineering Committee.

(5) The Thesis Examination Committee will examine the submitted doctoral thesis for research irregularities.

(6) The submitted doctoral thesis will be discussed by the Graduate School of Engineering Committee, received by the Dean of the Graduate School of Engineering, and reviewed by the Thesis Examination Committee.

3 Oral Thesis Examination

(1) Oral examinations will be conducted as the "final exam" listed in Article 8 of the Degree Rules of the University.

(2) The graduate student who submitted the doctoral thesis shall present the research results and answer questions in the doctoral thesis defense. The thesis defense will be open to the public.

(3) In the doctoral thesis defense, the Thesis Examination Committee conducts an oral examination for the graduate student who has submitted the doctoral thesis, reviews the graduate students' expertise, and examines whether the graduate students are qualified to grant a doctoral degree.

4. Determining “Passing” or “Failing”

(1) The Graduate School of Engineering Committee will determine the advisability of completing the Doctoral Program after comprehensively examining the content of the doctoral thesis submitted, the results of thesis defense and oral examinations, and the status of credits acquired (36 units or more).

(2) The examination criteria for the doctoral thesis in this graduate school are as follows:

- Satisfy diploma policy requirements
- Validity, novelty, and originality of research themes and problem settings
- Validity, novelty, and originality of research methods
- Validity of the paper structure
- Validity, novelty, and originality of conclusions
- Contribution to society or academic society
- Presentation of future issues and prospects
- Typography

(3) The evaluation of a doctoral thesis shall be “passing” or “failing”.

(4) In the course of examining doctoral theses, students shall be rejected if they are found to have fabricated, altered, plagiarized, or committed an inappropriate act that should be equated with any of these acts with the intent to obtain a degree in an improper manner.

(5) The Thesis Examination Committee will prepare an examination report based on the results of the judgment on the propriety of the completion of the Doctoral Program and report it to the Graduate School of Engineering Committee.

(6) The Graduate School of Engineering Committee reviews the examination report and determines the conferment of a degree upon completion of the Doctoral Program by a vote of 2/3 or more. The Graduate School of Engineering Committee reports the results to the President in writing and submits the degree to the President. The degree is granted by the president.

5 Retention of Examination Reports and Thesis

(1) The Educational Affairs Center shall keep review reports prepared by the Thesis Examination Committee.

(2) One (1) doctoral thesis that has passed the review shall be retained at the University Library.

(3) A doctoral thesis shall be published within three months of the date on which the degree is granted, together with a summary of the thesis and review results, and shall be printed and published within one year.

Laboratory Affiliations

The structure of each research field (laboratory) is as follows.

Master's Program Faculty List

Name	Specialized field
Osamu TABATA	Micro Nanosystems, Sensors, and DNA Nanotechnology
Hiroshi KAWAKAMI	System Design, Systems engineering, and Mechanical Engineering
Ian PIUMARTA	Reconfigurable Systems, Programming Languages, Metaprogramming, and IoT
Tadayuki IMAI	Optical Control Devices, Optical Crystals, Dielectrics, and Holography
Kazuo OKI	Remote Sensing, Drone Measurement, and Data Analysis
Koichi NAKAMURA	Quantum materials science, quantum chemistry, quantum physics, and nanomaterials
Shigeru HORII	Material science, Material Processes using Magnetic Fields, Oxide Material Properties, Strong Magnetic Field Science, and Superconductivity Engineering
Hiroaki FUKUSHIMA	Motion Control of Robot, and Multiple Robot Systems
Alberto CASTELLAZZI	Power Electronics, Power Semiconductor Devices, Packaging, and Thermal Management
Takahiro NAMAZU	Nanomechanics, Nanotechnology, and Functional Materials
Masayuki NISHI	Inorganic Materials Chemistry, Nanomaterials, and Optical Properties
Ryosuke MATSUMOTO	Solid Mechanics, Computational Mechanics, Material Strength Science, and Atomic Simulation
Ippei KISHIDA	Computational Materials Science, Battery Engineering, and Ionics
Ryo TAKAHASHI	Electrical Engineering, Information and Communication Engineering, and Statistical Physics
Yoshihiro SATO	Robotics, VR/MR, and Computer Vision
Fuat KUCUK	Electrical Machines, Power Electronics, Renewable Energy Conversion, and Electric Vehicles
Martin SERA	Mathematics, Complex Analysis, and Complex Geometry
Zilu LIANG	Wearable Computing, Ubiquitous Computing, Health Informatics, and Applied Health Science

Doctoral Program Faculty List

Name	Specialized Field
Osamu TABATA	Micro Nanosystems, Sensors, and DNA Nanotechnology
Hiroshi KAWAKAMI	System Design, Systems engineering, and Mechanical Engineering
Ian PIUMARTA	Reconfigurable Systems, Programming Languages, Metaprogramming, and IoT
Tadayuki IMAI	Optical control devices, optical crystals, dielectrics, holography
Kazuo OKI	Remote sensing, drone measurement, and data analysis
Koichi NAKAMURA	Quantum Materials Science, Quantum Chemistry, Quantum Physics, and Nanomaterials
Shigeru HORII	Material Science, Material Processes using Magnetic Fields, Oxide Material Properties, Strong Magnetic Field Science, and Superconductivity Engineering
Hiroaki FUKUSHIMA	Motion Control of Robot, and Multiple Robot Systems
Alberto CASTELLAZZI	Power Electronics, Power Semiconductor Devices, Packaging, Thermal Management Working with Dr. Kucuk: Electro-Mechanical Engineering, Renewable Energy Conversion
Takahiro NAMAZU	Nanomechanics, Nanotechnology, and Functional Materials
Masayuki NISHI	Inorganic Materials Chemistry, Nanomaterials, and Optical Properties
Ryosuke MATSUMOTO	Solid Mechanics, Computational Mechanics, Material Strength Science, and Atomic Simulation
Ippei KISHIDA	Computational Materials Science, Battery Engineering, and Ionics
Ryo TAKAHASHI	Electrical Engineering, Information and Communication Engineering, and Statistical Physics
Yoshihiro SATO	Robotics, VR/MR, and Computer Vision
Martin SERA	Mathematics, Complex Analysis, and Complex Geometry

"Sentan Navi" Student Website

The "Sentan Navi" website provides students with a variety of information related to student life. You can access the site on your mobile phone or smart phone using the QR code on the right.

◇ Communication ◇ Important information ◇ Announcements about lecture cancellations and supplementary lectures ◇ Call information ◇ Registration and syllabus reference ◇View personal class schedules ◇Confirmation and submission of assignments (reports, etc.) ◇Submit notifications (such as reporting a change of address, etc.) ◇ Interview reservations ◇Employment, etc.

*If you register your e-mail address on "Mail Settings" on Sentan Navi, postings can be sent to you by e-mail.

Class Timetable

Kyoto Uzumasa Campus

First Period	Second Period	Third Period	Fourth Period	Fifth Period
8:50~10:20	10:30~12:00	12:40~14:10	14:20~15:50	16:00~17:30

Kyoto Kameoka Campus

First Period	Second Period	Third Period	Fourth Period	Fifth Period
9:30~11:00	11:10~12:40	13:20~14:50	15:00~16:30	16:40~18:10

Weather Warning and Transportation Delay Policy

(1) **Weather Warnings**

Classes are subject to delays or cancellation if a "special warning", "storm warning", or "blizzard warning" is issued in Southern Kyoto / Kameoka of Kyoto Prefecture (Kyoto City, Kameoka City, Muko City, Nagaokakyo City, or Oyamazaki-cho).

The following applies for all campuses:

Time of Warning	Class and Examination Start Time
Warning lifted by 7:00 AM	Held from first period as usual
Warning lifted by 10:00 AM	Held from third period
Warning lifted after 10:00 AM	All lectures will be cancelled

(Note) As a general rule, classes are not subject to cancellation due to "heavy rain warnings", "flood warnings", and "heavy snow warnings". However, there are special cases that universities cancel classes. In that case, please check the university's homepage and Sentan Navi.

*If an applicable warning is issued after class starts, in principle classes will be canceled. Take immediate action to get yourself to safety when a "special warning" is announced. If you are unable to attend classes or examinations due to

applicable weather warnings, please respond in the same manner when there are public transportation delays. (Details are written in the following paragraph.

(2) **When public transportation is delayed**

If you are unable to attend a class or examination due to public transportation delays, please follow the instructions below:

① When you cannot attend class (or in-class examinations)

You should inform the person in charge of the class about it directly on the day and follow their instructions.

② When you cannot attend the regular final examination

Since you are allowed to take a makeup examination, you must apply for a makeup examination by submitting an application to the Educational Affairs Center within two days (exam days, Saturdays, Sundays, and holidays are not included) after completing the examination for the subject. *A transportation cancellation certificate or delay certificate is required to apply for a makeup examination. You can receive it from the station attendant or the website of public transportation.

Please note that the class or examination start time may be changed depending on the transportation situation. **Please use "Sentan Navi" to check whether classes are cancelled and avoid telephone inquiries.**