You who want to become a specialist click here!

GRADUATE SCHOOL OF SCIENCE AND ENGINEERING
KAGOSHIMA UNIVERSITY

Master's Program
- Mechanical Engineering
- Electrical and Electronics Engineering
- Architecture and Architectural Engineering
- Chemistry, Biotechnology, and Chemical Engineering
- Ocean Civil Engineering
- Information Science and Biomedical Engineering
- Mathematics and Computer Science
- Physics and Astronomy
- Chemistry and BioScience
- Earth and Environmental Sciences

Doctoral Program
- Material Science and Production Engineering
- System Information Science
- Natural Science

Inquiry
Kagoshima University Graduate School of Science and Engineering
Korimoto 1-21-40, Kagoshima City, 890-0065
TEL. 099-285-3055
grad.eng.kagoshima-u.ac.jp

Creation date: January 1, 2014
Contents

Organization ................................................. 01
Message from the Dean ................................... 02
Post-Graduate Program Outline ......................... 03

Master’s Program
- Mechanical Engineering ............................... 06
- Electrical and Electronics Engineering ............. 07
- Architecture and Architectural Engineering ....... 08
- Chemistry, Biotechnology, and Chemical Engineering 09
- Ocean Civil Engineering .............................. 10
- Information Science and Biomedical Engineering ... 11
- Mathematics and Computer Science ............... 12
- Physics and Astronomy ................................ 13
- Chemistry and BioScience ............................ 14
- Earth and Environmental Sciences .................. 15

Doctoral Program
- Material Science and Production Engineering .... 16
- System Information Science ........................... 17
- Natural Science ........................................... 18

Credits and Admissions Guide ......................... 19
Associated Organizations ............................... 20
Associated Facilities ......................................... 21
Staff List ....................................................... 23

University Calendar

- Terms
  - First Semester 4/1 to 9/30
  - Second Semester 10/1 to 3/31
- Matriculation Ceremony
  - Early April
- Vacations
  - Spring Vacation Early April
  - Summer Vacation 8/1 to 9/30
  - Winter Vacation From late December to early January
- Conferment Ceremony
  - From late March

Organization

Faculty of Engineering
- Mechanical Engineering
- Electrical and Electronics Engineering
- Architecture and Architectural Engineering
- Chemical Engineering
- Chemistry and Biotechnology
- Ocean Civil Engineering
- Information Science and Biomedical Engineering
- Mathematics and Computer Science
- Physics and Astronomy
- Chemistry and BioScience
- Earth and Environmental Science

Graduate School of Science and Engineering
- Mechanical Engineering
- Electrical and Electronics Engineering
- Architecture and Architectural Engineering
- Chemical Engineering, Biotechnology, and Chemical Engineering
- Ocean Civil Engineering
- Information Science and Biomedical Engineering
- System Information Science
- Natural Science

Faculty of Science
- Mathematics and Computer Science
- Physics
- Chemistry and BioScience
- Earth and Environmental Science

University education and research facility

Nansei-Toko Observatory for Earthquakes and Volcanoes
The Graduate School of Science and Engineering builds on this country’s achievements in science and technology and forms the core of Kagoshima University's postgraduate education. As such, we offer two programs: The Master's Program gives students a more specialized education than the one they received during undergraduate study. The Doctoral Program offers cutting-edge, interdisciplinary research opportunities that encourage innovation. We push the boundaries of engineering and science, fusing the two branches together to develop human resources who can compete with their counterparts anywhere in the world and form the foundation of this country's competitive advantage.

In other words, we nurture capable people with basic proficiency in natural science and engineering who can apply their capabilities in a wide range of fields at the same time. Professionals, who understand the necessity of scientific creation, will act proactively, see things from a long-term and comprehensive point of view, and professionals who will put theory into practice.

Message from the Dean

Kagoshima University is a research and educational institution located in the rich natural surroundings of southern Kyushu. As a university, we have been constantly ahead of the times. Our principle is to identify the potential in individual students and bring out the best in them, and to develop self-driven human resources with an enterprising spirit.

The science and engineering graduate schools were reorganized into the Graduate School of Science and Engineering in 1998 in order to improve the quality of science and engineering education and research, to apply basic research to innovation and originality in science and engineering, to develop creative human resources, and to live up to the responsibility and function of a university.

The three Doctoral Courses have about 80 students. About 30% of them have graduated university and held a job, and about 20% are international students. About 200 instructors cover a wide selection of education and application.

The research fields of the Science Courses are seismic/volcanic activity, biological diversity and astronomy/space science. The seismic/volcanic activity research covers the South Kyushu and Nansei islands areas, the home to one of the world’s biggest active volcanoes, Sakurajima. The research is part of the country’s earthquake/volcanic eruption prediction program and is led by the Nansei-Toko Observatory for Earthquakes and Volcanoes attached to the university. The bio-diversity research focuses on the area from the Nansei islands including the World Heritage registered site Yakushima, to tropical Asia. The astronomy/space science research has a strong link with the VERA Projects of the National Astronomical Observatory of Japan, and many other international research institutes.

The Engineering Course’s research fields are the environment, energy, medical technology and other engineering fields; volcanic activity, localized torrential downpours, typhoons, earthquakes, tsunamis and other natural disasters, motivated by request from the region on disaster prevention/mitigation; and issues that the islands and South Kyushu region face.

As the countries formerly called “developing nations” have acquired high levels of engineering, global competition in the industrial sector is increasingly fierce. Demand is rising for highly specialized and highly skilled human resources with a doctoral degree in science and engineering. They are regarded as globally competitive human resources and the engine of innovation. We hope many talented young researchers choose skilled human resources with a doctoral degree in science and engineering. They are regarded as globally competitive human resources and the engine of innovation. We hope many talented young researchers choose skilled human resources with a doctoral degree in science and engineering.

The science and engineering graduate schools were reorganized into the Graduate School of Science and Engineering in 1998 in order to improve the quality of science and engineering education and research, to apply basic research to innovation and originality in science and engineering, to develop creative human resources, and to live up to the responsibility and function of a university.

The three Doctoral Courses have about 80 students. About 30% of them have graduated university and held a job, and about 20% are international students. About 200 instructors cover a wide selection of education and application.

The research fields of the Science Courses are seismic/volcanic activity, biological diversity and astronomy/space science. The seismic/volcanic activity research covers the South Kyushu and Nansei islands areas, the home to one of the world’s biggest active volcanoes, Sakurajima. The research is part of the country’s earthquake/volcanic eruption prediction program and is led by the Nansei-Toko Observatory for Earthquakes and Volcanoes attached to the university. The bio-diversity research focuses on the area from the Nansei islands including the World Heritage registered site Yakushima, to tropical Asia. The astronomy/space science research has a strong link with the VERA Projects of the National Astronomical Observatory of Japan, and many other international research institutes.

The Engineering Course’s research fields are the environment, energy, medical technology and other engineering fields; volcanic activity, localized torrential downpours, typhoons, earthquakes, tsunamis and other natural disasters, motivated by request from the region on disaster prevention/mitigation; and issues that the islands and South Kyushu region face.

As the countries formerly called “developing nations” have acquired high levels of engineering, global competition in the industrial sector is increasingly fierce. Demand is rising for highly specialized and highly skilled human resources with a doctoral degree in science and engineering. They are regarded as globally competitive human resources and the engine of innovation. We hope many talented young researchers choose skilled human resources with a doctoral degree in science and engineering.

The philosophy of the Graduate School of Science and Engineering is "to" engage ourselves in research whose outcome helps us respond widely and flexibly to the advancement and diversification in the science and engineering fields, usher in next-generation technology, provide us with advanced and comprehensive knowledge about the nature around us, and nurture moral standards in student/minds so that they can cope effectively with contemporary issues.”

As an educational institution, we train engineers who possess an international point of view and can create new technology that supports a wide range of natural science. Thus, we have the responsibility to conduct research and education in ways that will instill broader outlooks and problem-solving capabilities in students and to engage ourselves in the kinds of research activities that contribute to the development of technology. The following are descriptions of research activities the Graduate School of Science and Engineering puts into practice in accordance with our educational goals:

Research

Based on our educational philosophy, our objective is "to" engage ourselves in research whose outcome helps us respond widely and flexibly to the advancement and diversification in the science and engineering fields, usher in next-generation technology, provide us with advanced and comprehensive knowledge about the nature around us, and nurture moral standards in student/minds so that they can cope effectively with contemporary issues.”

As an educational institution, we train engineers who possess an international point of view and can create new technology that supports a wide range of natural science. Thus, we have the responsibility to conduct research and education in ways that will instill broader outlooks and problem-solving capabilities in students and to engage ourselves in the kinds of research activities that contribute to the development of technology. The following are descriptions of research activities the Graduate School of Science and Engineering puts into practice in accordance with our educational goals:

Advanced research in order to use science and technology to support a knowledge-based society in many different ways.

Research to produce scientific and technological benefits that make the world a happier and better place for mankind.

Research to develop capable people who possess comprehensive and long-term viewpoints when dealing with natural science and technology and will contribute to making the world a better and happier place for mankind.

Research to develop capable people who are creative and can apply that creativity in solving problems in the many fields of natural science where research explores deeper, crosses disciplinary boundaries, and becomes more complex and comprehensive.

Research to develop capable people who have advanced intellectual abilities and will put theory into practice to support the technology side of a knowledge-based society.

Research to develop capable people who acknowledge the necessity of scientific creation and will contribute to solving problems arising from a rapidly changing society.

Research to develop capable people who have high moral standards and will apply them to play a proactive role in the development of local and international communities.

Admission Policy

Philosophy

The Graduate School of Science and Engineering puts into practice the following philosophy: "To develop truth-loving, highly ethical, self-motivated individuals who rise up to challenges.

Prospective Students

Those who share the philosophy of the Graduate School of Science and Engineering and possess the enthusiasm to put that philosophy into practice, those who have basic scholastic ability, those who think in a scientific and rational manner, and those who can communicate effectively.

Those who possess an intensely inquiring mind, are keenly interested in science and engineering issues, and will spare no effort in overcoming challenges.

Those who are intent on acquiring the skills needed to plan a multifaceted scientific observation program and to conduct logical analysis with results to analyze a wide variety of phenomena in the science and engineering fields.

Those who have the desire to apply the specialized knowledge acquired here for the betterment of the local and the international communities, who embrace diverse cultures and values, and those who possess high moral standards.

Post-Graduate Program Outline

The Graduate School of Science and Engineering builds on this country’s achievements in science and technology and forms the core of Kagoshima University's postgraduate education. As such, we offer two programs: The Master’s Program gives students a more specialized education than the one they received during undergraduate study. The Doctoral Program offers cutting-edge, interdisciplinary research opportunities that encourage innovation. We push the boundaries of engineering and science, fusing the two branches together to develop human resources who can compete with their counterparts anywhere in the world and form the foundation of this country's competitive advantage.

In other words, we nurture capable people with basic proficiency in natural science and engineering who can apply their capabilities in a wide range of fields at the same time. Professionals, who understand the necessity of scientific creation, will act proactively, see things from a long-term and comprehensive point of view, and professionals who will put theory into practice.
**Department of Mechanical Engineering**

The Department of Mechanical Engineering provides education and research programs in the fields of: Properties and strength of materials, structural design, equipment design and control, manufacturing engineering, various phenomena related to heat and fluids, energy utilization technology, clarification of various engineering phenomena, computer utilization technology in mechanical design, and various system construction techniques.

In this department, we aim to develop engineers who can proactively apply the knowledge necessary for the advancement of the mechanical engineering field using undergraduate studies in mechanical engineering as a basis. A wide range of education and research in the fields listed above is conducted in three different courses.

**Educational Goals (Philosophy) and Prospective Students**

Our educational goal is to develop global-minded people with leadership capabilities who can analyze machinery with insight and from a comprehensive perspective. We develop people with advanced and expert practical skills that allow them to actively develop the new technology necessary for constructing machines and mechanical systems in a diversified social environment. Prospective students should fully understand these educational goals and possess the basic academic ability to acquire further expertise through research and study.

**Course Work**

- **Production Engineering Course**

- **Energy Engineering Course**

- **Mechanical System Engineering Course**

**Admission Policy**

We aim to develop enterprising and leading professionals who possess specialized knowledge, the ability to make sound ethical judgments, and who can pursue worldwide-leading technology through industrial work related to manufacturing.

**Curriculum**

In addition to the required "Mechanical Engineering Seminar," we also provide basic and comprehensive "Advanced Courses in Mechanical Engineering" so that students can gain a comprehensive understanding of the entirety of the coursework. Required and elective courses are classified into: the Production Engineering Course, the Energy Engineering Course, and the Mechanical System Engineering Course. Students are required to obtain more than 6 credits from each course.

Upon matriculation, students create a study program after consultation with their academic advisor, and then decide which classes to take from required and elective classes. Students take these classes in order to become engineers with appropriate ethical values.

---

**Department of Electrical and Electronics Engineering**

Scientific technology in a highly-advanced information-oriented society is characterized by the evolution and systematization of cutting-edge individual technologies such as new materials, VLSI, computers, etc. In particular, electronic device engineering for the development of new materials and devices based on new concepts, electrical power engineering for the efficient utilization of electrical energy, and communication systems engineering for the systematization of communication, information, and computer technology, are all basic technologies that are utilized everywhere in the modern world and form the foundation of an information-based society.

In response to the modern organization of electrical and electronics engineering, our depa Molecular Sciences course for education and research purposes: Electronic Device Engineering, Electronic Power Engineering, and Communication Systems Engineering. Our goal is to develop human resources who are qualified to take central and leading roles in the state-of-the-art electronics and electronics fields along with related interdisciplinary areas. Our post-graduate education fosters highly-specialized experts and researchers with a deep understanding of their respective fields, who can see the entire body of scientific technology from a broad point of view, and possess the ability to think outside the box.

**Educational Goals (Philosophy) and Prospective Students**

Our educational goal is to foster basic skill and ability to apply that skill in electrical and electronics engineering, in technical experts and researchers who possess a high sense of engineering ethics, an abundance of creativity, and can contribute to an advanced information-oriented society. We welcome those with basic academic ability, who understand our educational goals, and are eager to obtain highly specialized capabilities through education and research.

**Course Work**

- **Electronic Device Engineering**
  - An advanced information-oriented society is grounded in a large variety of electronic devices. While conducting research into the operating principle of electronic devices, this course also researches the design of essential materials needed for high-performance electronic devices, manufacturing processes, etc. Research and education focus mainly on the manufacturing process of devices using high-temperature superconductor-related thin films, transparent conductive films for displays, rechargeable batteries, physical properties evaluation using photo-electron spectroscopy, the photosensitive process, laser reparation, and super-conductor growth.

- **Electronic Power Engineering**
  - We offer research and education regarding the theory of system structure in electric control theory, the design of a robust optimal control system, noise damping in DC/DC converters as an electric energy conversion system, as well as research on making the systems perform higher, with higher reliability, more intelligent, and smaller to fit into both an industrial and experimental aspect. In addition, research is being conducted to improve performance using the applications of superconductor technology in response to the demand for a high-quality, highly reliable electric system. Education and research regarding degradation diagnosis technology of power supply systems is also being developed.

- **Communication Systems Engineering**
  - Research and education is conducted on electric circuits, computers, communication instruments, LSI audio information processing, GPS systems, and power systems to support a networked and information-oriented society. Particular emphasis is placed on optical fiber communication technology, ultra-high frequency circuit technology, and LSI technology; the development of a multi-agency system through soft information processing, construction of a next generation multimedia platform, analysis of electric power system design, and power system development.

**Admission Policy**

We aim to develop creative and specialized professionals who can pursue worldwide-leading technology, possess specialized knowledge, have the ability to make sound ethical judgments, and will take leadership roles in an industry that leads an advanced information-oriented society.

---

**Prospective Students**

- **Those who possess highly advanced specialized knowledge which enables the pursuit of world-leading mechanical engineering technology**
- **Those who can proactively contribute to the community through industrial work related to manufacturing**
- **Those who, equipped with the ability to find solutions to problems as well as the ability to make sound ethical judgments, will play enterprising and leading roles in the world**

- **Those with broad outlooks who can freely utilize their high-level of expertise to respond swiftly and flexibly to the appeal of a diverse and dynamically changing society**
- **Those who have the creative capacity to invent new technologies and solve problems related to electrical and electronic engineering**
- **Those who are highly-motivated to lead an advanced information-oriented society and those who are committed to contributing to local and global communities**
Department of Architecture and Architectural Engineering

Architecture is a whole spectrum of technologies we humans use to organize and create space for various purposes. The Architecture program is divided into three courses: Architectural Planning, Building Environment, and Building Structure. The course takes over from the undergraduate curriculum and offers comprehensive education and research opportunities.

Educational Goals (Philosophy) and Prospective Students

Our goal is to educate students who have the ability to identify and solve problems, to master the basic academic skills necessary to experiment and analyze, to apply the results of research to their specialized fields and beyond, and to collaborate broadly with different fields so that they become self-reliant scientists, engineers, or researchers in the architectural profession. We welcome individuals with basic scholastic ability and willingness to seek advanced and specialized training through the education and research provided through the Architecture Course.

Admission Policy

We aim to develop professionals and specialists who can inherit humanity’s architectural culture and technology, and with consideration for the preserved and the new buildings, to create structures that contribute to the maintenance of the natural environment, the resources, and the environment. In addition, we will educate students who can propose ideas and applications to the social and cultural environment and who can contribute to the social and cultural environment.

Course Work

Architectural Design Course

Education and research fields: Architectural Design for Diverse Use, Urban Landscape Improvement and Preservation of Historical Environments, Improvement of Living Environments through Practical Activities in the Region.

Environmental Design Course

Through Environmental Design, students will study and research heating and lighting of living environments, along with indoor environmental control such as air quality, and utilities and equipment for balanced environments.

Structural Design Course


Admission Policy

We aim to develop professionals and specialists who can inherit humanity’s architectural culture and technology, and with consideration for the preserved and the new buildings, to create structures that contribute to the maintenance of the natural environment, the resources, and the environment. In addition, we will educate students who can propose ideas and applications to the social and cultural environment and who can contribute to the social and cultural environment.

Course Work

Architectural Design Work Experience Program

The eligibility requirements for the Architecture Examination were revised when the Architect Act was enacted in November 2008. Accordingly, the practical experience criteria at the graduate school was revised in November 2008. Accordingly, the practical experience criteria at the graduate school was revised in November 2008.

Department of Chemistry, Biotechnology, and Chemical Engineering

The Department of Chemistry, Biotechnology, and Chemical Engineering conducts research regarding material and life sciences on the foundations of key technology to support a sustainable society. Studies comprise of three courses: In the Applied Chemistry Course and Biotechnology Course, research is centered on high-functional materials, new substance creation, chemical measurement, environmental engineering, biominetic device, molecular conjugates, and drug-medical-supplies development. The Chemical Engineering Course covers high-functional material processing, reaction/separation process, resource circulation process, environmental conservation/improvement, energy utilization devices, material production process, and bioprocess. Taking a practical approach by tackling the subjects of health, safety, environment, materials, energy, life phenomena and other such pressing issues of our time, we develop researchers and engineers whose capabilities cover everything from basic research to advanced engineering.

Educational Goals (Philosophy) and Prospective Students

Our mission is to educate highly-specialized, globally-minded professionals who will pursue harmony between society, science, technology, and the natural environment and can bring new science, technology, and industrial structure to the world. Prospective students should share our philosophy and have the basic academic ability to acquire advanced specialized abilities through research and study.

Admission Policy

We aim to educate students who are flexible thinkers and have an inquisitive nature. Prospective students should possess specialized knowledge, the ability to make sound ethical judgments, and the will to bear the responsibility of taking the lead in creation and pursuit of cutting-edge technology.

Course Work

Applied Chemistry Course

Our research and education program aims to foster creativity and ability that enable students to develop new materials and chemical technology, and to contribute to the development of new materials and chemical technology.

Biotechnology Course

Our research and education program aims to foster students who have wide knowledge and ability to develop new products and technologies.

Chemical Engineering Course

Our research and education program aims to foster future researchers and engineers who will be active in the fields of ‘development of eco-friendly chemical processes’, ‘contribution of energy resources utilization systems’, and ‘innovation of highly functional materials’.
Department of Ocean Civil Engineering

With consideration to the unique characteristics of Japan and Kagoshima Prefecture, the Department of Ocean Civil Engineering engages in deepening the understanding of physical phenomena and matter cycle processes along with research and education in the fields of environmental preservation, disaster prevention, and utilization and development of regions from the coast to the open oceans. Furthermore, the department also conducts research and education in survey, assessment, planning, construction, and maintenance of off-shore structures, near-shore areas and coastal public works.

Using basic and specialized studies in civil engineering and oceanography as a foundation, students acquire advanced knowledge and technical skill in seeking greater understanding of coastal and off-shore regions of the ocean, comprehensive understanding of the global environment, development of environmental conservation, and survey, planning, construction, and maintenance (including disposal) of disaster prevention public works and off-shore structures.

Prospective Students

- Those who have the ability to make free use of the specialized knowledge gained through the study of ocean civil engineering to deal with advances in science and technology with an open mind.
- Those who have the ability to proactively create a sustainable society where humans and nature coexist in symbiosis.
- Those who can deeply respect and support the global scale on which humans and nature interact with each other.

Course Work

I Environmental Systems Engineering Course
Education and research focus on the utilization and development, along with elucidation of physical phenomena in coastal and off-shore regions, environmental conservation, and disaster prevention.

I Construction Systems Engineering Course
Education and research focus on the planning, construction, and maintenance of public works and off-shore structures from near-shore areas to off-coast regions.

Department of Information Science and Biomedical Engineering

Information and Communication Technology (ICT) is the basis for a highly advanced information-oriented society, and demands for ICT is growing to make the world human- and environment-friendly. Particularly in Japan, a labor shortage is expected due to a rapidly aging population and low birth rates. Therefore, the realization of a computer-aided society where people of both gender and all ages are able to use computers efficiently is desired.

This leads to the need for information system engineers with the knowledge and ability to apply that knowledge, along with a good understanding of the essences of cognitive science and biological systems as it applies to human beings. Additionally, as there has been great interest in experimenting with robots, cars, and other machines that can think, perceive, and make decisions in the same way as humans, the information science field has great potential for future growth. Therefore, engineers who understand the fundamentals of biological functions and how the human brain processes information are needed.

Research and education is divided into three courses: Information Systems Engineering, Brain Cognitive Science, and Biometric Engineering. These courses complement each other and foster highly specialized engineers and researchers.

Prospective Students

- Those who have the ability to make free use of the specialized knowledge gained through the study of ocean civil engineering to deal with advances in science and technology with an open mind.
- Those who have the ability to proactively create a sustainable society where humans and nature coexist in symbiosis.
- Those who can deeply respect and support the global scale on which humans and nature interact with each other.

Course Work

I Information Systems Engineering Course
Education is focused on computer-based data processing and networking. Through specialized research and seminars, we develop advanced professional engineers and researchers in the field of information systems engineering.

I Cognitive Biomedical Systems Engineering
Education is focused on cognitive science and neuroanatomy studies. Through specialized research and seminars, we develop advanced professional engineers and researchers in the field of cognitive biomedical systems engineering.

Prospective Students

- Those who are highly-motivated to lead an advanced information-oriented society and those who are committed to contributing to local and global communities.

Courses are aimed at fostering students who excel in more than one field based on the broad understanding of information science and biomedical engineering and cover both the information systems field and the cognitive biomedical systems engineering field. For this reason, "Information Systems Engineering Special Lecture" and "Cognitive Biomedical Engineering Special Lecture" are required classes that cover both fundamental and specialized content for their respective field. Students are required to obtain more than 6 credits from both required and elective classes contained in the coursework. The coursework focuses on basic yet comprehensive knowledge that students must acquire in their respective fields. All classes are meant to develop highly-knowledgeable engineers who can support an advanced information-oriented society.
Department of Mathematics and Comptr Science

We teach and research fundamental structures in mathematics and their analysis. We also teach and research on mathematical sciences, which have been diversifying due to interactions with many other scientific and cultural areas, their related areas as well as theoretical fundamentals of information/computer science. Our aim is to enable students to understand fundamental theories in mathematics deeply as well as to understand theories of information/computer science and mathematical analysis of various phenomena of nature and society that become a driving force for developments of mathematical sciences, and to have the ability of applying their knowledge.

Educational Goals (Philosophy) and Prospective Students

Our educational goal is to provide society with professionals having advanced skills in mathematical science and information/computer science; the ability to make comprehensive decisions and a superior sense of ethics based on expertise of mathematics. We welcome those who can support social foundations by contributing to regional and global communities with a strong sense of duty.

Admission Policy

We aim to foster creative and leading professionals within the fields related to mathematics and computer science who possess a high level of specialized knowledge and technical skill, the ability to conduct research, and the ability to make sound ethical judgments.

Prospective Students

- Those who possess a high level of specialized knowledge and technical skill in the fields of mathematics and computer science.
- Those who can understand the roles and responsibilities of mathematics and computer science.
- Those who can solve complex problems using mathematical and computer science.
- Those who can contribute to the creation of a sustainable society through research and education.
- Those who can apply their specialized abilities and flexible thinking skills in physics to work on deepening and advancing science and technology.

Course Work

- Pure Mathematics Course
  Mathematics provides a theoretical basis vital to the progress of science and technology brought by the development of natural science. This course focuses on research and education regarding the theoretical system of mathematics and development of research and education on fundamental structures of mathematics in the subjects of algebra, analysis, and geometry.

- Environmental Systems Engineering Course
  This course focuses on research and education regarding the theoretical aspects of mathematical science and its applications along with analysis of the various phenomena found in nature and society.

- Construction Systems Engineering Course
  The remarkable advancement of computer technology in recent years has also contributed to the rapid development of the information/computer science. This course conducts research and education on mathematical theory in this field and its applications.

Curriculum

To provide a wider range of advanced education and research focused on specialty fields compared to education at the undergraduate level, we offer required subjects corresponding to 16 credits. "Advanced Studies in Mathematics and Computer Science" covers the fundamental and comprehensive materials necessary to study mathematics and computer science.

In addition to the required subjects (16 credits), students must obtain a total of 30 credits or more from elective subjects, including 6 subjects from the "Pure Mathematics", "Applied Mathematics", or "Computer Science" course. These subjects should be selected upon consultation with faculty advisors.

Department of Physics and Astronomy

Physics, including astronomy, forms the foundation of science and technology that address all phenomena in the universe and that contribute all of developments in human life. It spans a wide range, from Planck-scale microworlds of elementary particles, through the meter scale of our daily life, to the gigapixel scale of cosmology.

The Department of Physics and Astronomy is promoting researches on basic and fundamental laws of the nature, such as physical properties of matter under very low temperature or strong magnetic fields, chaotic or nonlinear dynamics, observational and numerical astronomy, and meteorology with space science. The department also aims education to train logical and practical abilities for solving complex problems, which mankind faces or which next generation needs to solve, using physical formalism.

Our department is in alliance with the JAXA (Japan Aerospace Exploration Agency) and the NAOJ (National Astronomical Observatory of Japan) to form a cooperated graduate school. We have a cooperation agreement with Ehime University to conduct joint research and education programs in both the graduate and undergraduate levels. We have also made cooperation agreements with the NAOJ, Hokkaido University, University of Tokyo, Tokyo Institute of Technology, Nagoya University, Kyoto University, and Hiroshima University for research and education in the field of infrared astronomy.

These collaborations promote space researches using spacecrafts and the VERA Telescope to study the structures and characteristics of the celestial bodies in the Milky Way Galaxy.

Educational Goals (Philosophy) and Prospective Students

Our educational goal is to train researchers and technicians, who possess both deep insight in physics and flexible ability in studying natural sciences, to promote modern science and technology. We call for those who own basic academic ability, those who understand our educational goals, and those who are eager to obtain highly specialized skills through education and research.

Admission Policy

We aim to admit creative, skilled, and leading professionals via our researches such as material physics, theoretical physics, observational astronomy, and theoretical astrophysics to nurture solubility for unprecedented problems.

Prospective Students

- Those who possess a high level of specialized knowledge and technical skill in the fields of physics and astronomy.
- Those who can contribute to the creation of a sustainable society through research and education.
- Those who can support social foundations by contributing to regional and global communities with a strong sense of duty.

Course Work

- Physics Course
  Education and research focusing on deepening our understanding of electronic and magnetic properties of solids, thin films and solid surfaces by first-principle calculations, the search for new functional materials, studies on basic phase theory, understanding of various non-linear phenomena, investigation of characteristics in alternating fields of dielectrics, electric, magnetic, and thermodynamic research on different types of strongly correlated multilayer materials including magnetic substances such as superconductors under high temperature, rare earth elements, and transition metal elements.

- Astronomy Course
  Researches on astronomy and space science. Observational and theoretical studies of the galactic dynamics and structures. Physical processes in star formation and evolution and high-energy phenomena in the vicinity of black holes, using optical/infrared and radio telescopes. Theoretical and numerical approaches for studying galactic dynamics, cosmology, and gravity.

Curriculum

A total of 30 units or more must be obtained. 16 must be from required classes and more than 6 credits are needed from elective classes related to the student’s selected course. Other credits should be obtained after consultations with the student’s supervisor in accordance with a student’s research field and chosen course.
Advanced research in the study of chemistry and biology has been making enormous progress while each field continues to exert its influence on the other. In the Department of Chemistry and BioScience, we foster human resources who will actively contribute to a wide range of the fields through education and research. Lecture classes are provided in basic chemistry, biochemistry, molecular biology, and physiology. Our goal is to have students recognize the behavior of simple molecules, and understand the complex structures of molecules and the phenomenon of life on the bases of chemistry and biology.

In the department of chemistry and bioscience, we foster human resources who will actively contribute to a wide range of the fields through education and research. We aim to develop specialists who can actively contribute to the fields of chemistry and biology.

**Educational Goals (Philosophy) and Prospective Students**

Our educational goal is to foster people who possess a broad range of fundamental knowledge and the ability to apply their knowledge and technical skill actively in the fields of chemistry and biology. Prospective students should understand these educational goals and possess the basic academic ability to acquire highly specialized expertise through research and education.

Those who can think flexibly, possess an inquisitive nature, and can seek creative solutions to issues related to chemistry and biology.

Those who possess expert knowledge in chemistry and biology, and will positively work to construct a sustainable global community where nature and human beings can coexist.

Those who possess the ability to make sound ethical judgments and make global contributions.

**Admission Policy**

We aim to develop specialized professionals who will advance the world of chemistry and biology while at the same time deeper their own understanding of both fields. We also aim to develop professionals who possess the technical skill and ability to conduct research in both chemistry and biology.

**Department of Chemistry and BioScience**

The department of earth and environmental sciences promotes education and research from a global perspective through comprehensive understanding of the Earth, a place where human live and interact, which comprises of geosphere, hydrosphere, and biosphere. The department of earth and environmental sciences carry out research and education in order to understand the actual conditions of the natural environment and basic mechanism of fundamental changes that occur, emphasis is put particularly on the fields of geology, biology, and chemistry. Students are encouraged to conduct field work to directly observe the geosphere, hydrosphere, and biosphere.

We aim to foster human resources who can think flexibly and comprehensively, who possess not only highly advanced and specialized knowledge but a wide range of knowledge and learning which goes beyond the conventional realm of their academic fields.

**Educational Goals (Philosophy) and Prospective Students**

Our educational goal is to develop people with a good sense of ethics who can think flexibly and comprehensively and possess systematic knowledge of the natural environment. Prospective students should understand their educational goals and possess the basic academic ability to acquire high level of specialized expertise through study and research.

Those who will advance scientific technology by using their specialized ability concerning the earth and environmental sciences from a broad perspective.

Those who can positively work to construct a sustainable global community where nature and human beings coexist.

Those who possess a deep reverence for the global scale on which humans interact with nature and the ability to work with that sense of reverence.

**Admission Policy**

We aim to develop creative and professionals who understand the geosphere, hydrosphere, and biosphere from a comprehensive perspective, and possess the ability to make sound ethical judgments and can lead the world, with specialized knowledge of the earth, a place where we live.

**Course Work**

1. **Molecular Photonics and Colloid Science Course**
   - Education and research related to photophysics of molecular aggregates and condensed systems, chemistry of functional molecular aggregates, environmental catalytic chemistry, clean energy, and medical care.

2. **Organic and Biological Chemistry Course**
   - Education and research related to the chemistry of naturally occurring organic compounds, synthesis and organic reactions of organic compounds, and protein chemistry and antibody/peptide molecule design.

3. **Bio-Dynamics Course**
   - Education and research related to symbiosis between plants and microorganisms, gene expression analysis of viruses of plants and microorganisms, body axis formation of vertebrates, reproduction and generation of marine intervertebrates, circadian rhythm of animals, neuro-physiology of taste and neural mechanisms of taste behavior of fish.

**Curriculum**

A variety of classes are offered to allow students to obtain a higher level of expertise and skill using knowledge acquired during their undergraduate studies as a basis. Chemistry and BioScience Thesis Reading, Chemistry and BioScience Special Research, and Special Lecture on Advanced Chemistry (Master’s Program) are required subjects. Students are required to take a total number of 16 credits from the above.

A total of 90 credits or more must be obtained. 16 must be from required classes and more than 6 credits are needed from elective classes related to the student’s selected course. Other credits should be obtained from other classes after consultations with a faculty advisor.

**Geological Science Course**


**Environmental Analysis Course**

- Education and Research Fields: Development of Highly Sensitive Analytical Methods for Measurement of Trace Substances such as Mercury that would affect the Environment and furthering the Understanding of Chemical Forms of Trace Elements in the Environment (air, water, substratum, organisms) in the Field of Inorganic Analytical Chemistry, Study of Ion Dissolution Status and furthering this Material’s Chemical Reactivity.

**Biodiversity Course**


**Research**

Research of the natural environment requires multiple approaches from various fields. Students are encouraged to study a different number of fields not limited to the particular field of their specialization. A total of 30 credits or more must be obtained. 16 must be from required classes and more than 6 credits are needed from elective classes related to the student’s selected course. Other credits should be obtained after consultations with a student’s respective faculty advisor in accordance with a student’s research field and chosen course.
Department of Material Science and Production Engineering

In this course, we aim to develop new materials and to establish production systems in order to support a nation founded in science and technology. With material creation, construction of manufacturing processes, and a wide range of basic knowledge which allows coexistence with the environment on the basis of the rational use of energy, we aim to provide fundamental and comprehensive education and research that can be used to flexibly cope with complex and diversified industrial activities and changes in the natural environment.

We aim to develop researchers who can take a leading role in research/education institutes and highly skilled engineers in the industrial field. For this purpose, our department is divided into three key sections: Structural Design Engineering, Industrial Process Engineering, and Material Science.

Educational Goals (Philosophy) and Prospective Students
- Those who have a strong interest in exploring various challenges offered in the material science and production engineering fields, and will positively engage themselves in research.
- Those who have a wide range of interests in developing interdisciplinary education programs and will make an effort to commit to working in a new field.
- Those who aim to become highly-specialized professionals who will take the initiative to lead the world.

Post-graduate education focused on doctoral students motivated to solve various problems related to structural design with the aim of manufacturing diverse, larger, lighter, and highly safe structures in an economical manner.

Post-graduate education focused on doctoral students who are motivated to solve various problems related to the exploration of various theories and technology along with creating theories concerning construction of production processes using the manufacturing of different materials, the machining method, and bio-functions.

Post-graduate education focused on doctoral students who will be able to contribute to the development of human beings by aiming to solve various problems related to advanced technology. To this end, students will study on physical and chemical phenomena of materials in the levels of electron, molecule, or atomic size. Furthermore, on the basis of fundamental knowledge, they will also conduct advanced and comprehensive research and development regarding the most advanced functional materials.

Admission Policy
- We aim to develop highly capable intellectuals who will serve as researchers, engineers, and educators, who will accomplish many achievements in their expert fields in Structural Design Engineering, Industrial Process Engineering, and Material Science, and who will solve future problems in society by utilizing the ability acquired through research.

Department of System Information Science

In this course, we aim to foster human resources who will be able to create and develop highly specialized research covering a broad range of areas. At the end of the course, students will acquire the cutting-edge knowledge in a particular specialty along with basic knowledge related to a number of additional research fields characterized by the systematization of advanced individual technologies into the most advanced technological system. We aim to develop human resources who can utilize their expert knowledge in system information engineering, pioneering cutting-edge research as highly specialized professionals to cope with the advancement of academic research in a wide range of areas, and be able to make contributions to the global community. For this purpose, our department is divided into three sections: Systems Control Engineering, Intelligent Information Engineering, and Environmental Systems Engineering.

Educational Goals (Philosophy) and Prospective Students
- Those who are strongly interested in acquiring expert knowledge and cutting-edge skills and are well motivated to commit themselves to research.
- Those who have the ability to pioneer a cutting-edge field, and are willing to make the effort to solve problems.
- Those who aim to become highly-specialized professionals and will take the initiative in leading the world.

Post-graduate education focuses on doctorate students who are globally minded and can effectively exchange information, conduct advanced and comprehensive research and education on various problems related to the specific purpose of system control accordingly.

Post-graduate education focuses on doctorate students who can contribute to the advancement of the advanced information-oriented society of the 21st century. In order to support such an information-oriented society, students conduct research and education on human thinking, problem solving, and intelligence as the language of communication and the management and processing of information and process information.

Post-graduate education focuses on doctorate students who can contribute to the development of human beings who are able to solve various problems related to theoretically approaching and mathematical analysis of highly composite and complex systems, including the system of life phenomena or living bodies in an electronic and sub-atomic environment.

Admission Policy
- Research on systems control, intelligent information, and biological material science are conducted from the basic and universal perspectives of applied science. We aim to develop intellectual scientists who are supported by deep insight and a broad range of knowledge and those who can challenge the unknown in society by utilizing their capacity to solve problems fostered by research activities.
Post-Graduate Program Course and Admission Guide

Master’s Program

- Enrolled for two or more years
- Emailed a total of more than 30 credits including more than the 20 pre-designated credits in each relevant department
- Pass the thesis assessment and final examination

The following is the number of credits which must be obtained from department:

<table>
<thead>
<tr>
<th>Major</th>
<th>Required Classes</th>
<th>Elective Classes</th>
<th>Other Departments</th>
<th>Early Completion Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mechanical Engineering</td>
<td>10 credits or more</td>
<td>6 credits or more</td>
<td>Up to 10 credits</td>
<td>Credits for required subjects in the second year (6 credits) can be exempted by taking the equivalent number of credits from electives.</td>
</tr>
<tr>
<td>Electrical and Electronic Engineering</td>
<td>9 credits or more</td>
<td>10 credits or more</td>
<td></td>
<td>Credits for required subjects in the second year (6 credits) can be exempted by taking the equivalent number of credits from electives.</td>
</tr>
<tr>
<td>Architectural and Architectural Engineering</td>
<td>9 credits or more</td>
<td>10 credits or more</td>
<td></td>
<td>Credits for required subjects in the second year (6 credits) can be exempted by taking the equivalent number of credits from electives.</td>
</tr>
<tr>
<td>Chemistry and BioScience</td>
<td>16 credits or more</td>
<td>6 credits or more</td>
<td>Up to 8 credits</td>
<td>Credits for required subjects in the second year (8 credits) can be exempted by taking the equivalent number of credits from electives.</td>
</tr>
</tbody>
</table>

Doctoral Program

- Enrolled three or more years
- Emailed a total of 12 credits or more including 4 credits or more from lectures (Credits from elective classes can be exempted from any department, however, they must be from classes that have not already been taken during the Master’s portion of the course.)
- Pass the doctoral dissertation assessment and final examination

The following is the number of credits required from department:

<table>
<thead>
<tr>
<th>Major</th>
<th>Required Classes</th>
<th>Elective Classes</th>
<th>Other Departments</th>
<th>Special Seminar I</th>
<th>Special Seminar II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material Science and Engineering</td>
<td>7 credits or more</td>
<td>7 credits or more</td>
<td></td>
<td></td>
<td>Credits can be earned in the first year of Doctor’s Program.</td>
</tr>
<tr>
<td>System Information Science</td>
<td>6 credits or more</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural Science</td>
<td>4 credits or more</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Entry Guide

<table>
<thead>
<tr>
<th>Selection</th>
<th>Master’s Program</th>
<th>Doctoral Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Selection</td>
<td>Oral examination</td>
<td>Written examination</td>
</tr>
<tr>
<td>Graduate Student Special Selection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign Student Special Selection</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is preferable that those wishing to apply for the Doctoral Program contact the relevant faculty advisor to discuss the context of the dissertation dissertation in advance.

Contact us

- Contact for exam
  Application details and important information (e.g., qualification, quota, application period, selection method, examination date) can be found on the homepage ([www.kagoshima-u.ac.jp/exam](www.kagoshima-u.ac.jp/exam))

GRADUATE SCHOOL OF SCIENCE AND ENGINEERING KAGOSHIMA UNIVERSITY

- For more information on application and the graduate school please contact
  Graduate School Section, Graduate School Administrative Division, Administration Department, Graduate School of Science and Engineering, Kagoshima University 1-21-40 Koyamatsu, Kagoshima City, 890-0065
  Tel.:099-285-8234 Fax:099-285-3410
  daigakuin@eng.kagoshima-u.ac.jp
### Cooperation Agreements

#### Internal Institutions
- Computing and Communications Center
  - The Kagoshima University Museum
- **External Institutions**
  - National Institute of Advanced Industrial Science Technology (AIST)
  - National Institute for Materials Science (NIMS)
  - Port and Airport Research Institute (PARI)
  - National Astronomical Observatory of Japan (NAOJ)
  - Japan Aerospace Exploration Agency (JAXA)
  - National Institute for Minamata Disease (NIMD)
- **Japan**
  - Agreement to create an international network for singularity theory

#### Foreign Countries
- Universiti Teknologi PETRONAS (Malaysia)
- Faculty of Mechanical Engineering University Teknologi Malaysia (Malaysia)
- Veer Narmad South Gujarat University (India)
- Institute of Science and Engineering (Science), Ehime University
- Research Center for Space and Cosmic Evolution

#### Associate Institutions
- **University of Indonesia, Faculty of Engineering (Indonesia)**
- **Ben-Gurion University of the Negev (Israel)**
- **Veer Narmad South Gujarat University (India)**
- **Graduate School of Science and Engineering**
- **Japan**
- **Understanding of tectonics in "Nansei-Toko" (Nansei islands)**
  - **Research**
    - The establishment of the Nansei-Toko Observatory for Earthquakes and Volcanoes was approved on April 11, 1991 as a facility to promote earthquake and volcanic eruption prediction research in part due to strong requests by the local community.
    - In November 1994, a two-story building was constructed in Terayama, Yoshino-Gun in the northern part of Kagoshima City. After completion, the base of observations and studies was shifted to this new site from the main Kagoshima University campus site in Koriyama.
    - This observatory sits in a quiet environment at a prime location for direct observation of volcanoes, as it commands a close view of Sakurajima volcano over Kagoshima Bay and the Kirishima volcanoes Kaimon volcano in the distance.

#### Associated Facilities
- **Nansei-Toko Observatory for Earthquakes and Volcanoes**

#### Study of dynamic phenomena such as earthquakes and ground deformations accompanied by volcanic activity have been performed in southern Kyushu and northern part of Nansei Islands (north of Tokunoshima). Observation and research of crustal deformation using GPS is also conducted. The research contributes to the understanding of stress fields and mechanisms of earthquakes.

#### Observation of volcanoes, as it commands a close view of Sakurajima volcano over Kagoshima Bay and the Kirishima volcanoes Kaimon volcano in the distance.
The following specialists provide research and education support to students and help find solutions to student academic issues.

Please add "[user](mailto:example@domain.com)" to the end of the addresses listed below under "E-mail".

### Mechanical Engineering

<table>
<thead>
<tr>
<th>Title</th>
<th>Name</th>
<th>Specialty Field</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate Professor</td>
<td>KATAMURA Mao</td>
<td>Materials for Machines</td>
<td>katsufumi@mech.</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>KENOJI Yusuke</td>
<td>Fluid Machinery, Fluid Engineering</td>
<td>yusuke@mech.</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>KIKUCHI Takeshi</td>
<td>Fracture mechanics, Computational Mechanics</td>
<td>take@mech.</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>NISHIDA Tomoyuki</td>
<td>Computational Mechanics</td>
<td>tomoyuki@mech.</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>OTAKA Takashi</td>
<td>Mechanical Dynamics</td>
<td>otaka@mech.</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>YAMAMOTO Kenjiro</td>
<td>Environmental Studies</td>
<td>yamamoto@mech.</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>YU Yong</td>
<td>Robot Engineering</td>
<td>yong@mech.</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>YAMAMORI Yuji</td>
<td>Ceramic Engineering</td>
<td>yuji@mech.</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>YAMAUCHI Shohei</td>
<td>Control Engineering</td>
<td>shohei@mech.</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>YAMAZAKI Shuhei</td>
<td>Computational Fluid Dynamics</td>
<td>shuhei@mech.</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>AKIYAMA Yusuke</td>
<td>Heat Transfer Engineering</td>
<td>yusuke@mech.</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>NISHIHARA Yuki</td>
<td>Non-Linear Control</td>
<td>yuki@mech.</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>NISHIKAWA Hiroshi</td>
<td>Bioengineering, Mechanical Dynamics</td>
<td>hiroshi@mech.</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>ISOYAMA Nao</td>
<td>Computational Mechanics</td>
<td>nao@mech.</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>OZAWA Toshiya</td>
<td>Strength of Materials</td>
<td>toshiya@mech.</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>NISHIO Shinya</td>
<td>Numerical Study of Combustion Flow</td>
<td>shinya@mech.</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>OISHI Takeshi</td>
<td>Fluid Engineering</td>
<td>takeshi@mech.</td>
</tr>
<tr>
<td>Assistant Professor</td>
<td>NUMAYAMA Sanru</td>
<td>Materials Engineering</td>
<td>sanru@mech.</td>
</tr>
</tbody>
</table>

### Electrical and Electronics Engineering

<table>
<thead>
<tr>
<th>Title</th>
<th>Name</th>
<th>Specialty Field</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor</td>
<td>OBATA Koji</td>
<td>Applied Ion Engineering</td>
<td>koboji@mech.</td>
</tr>
<tr>
<td>Professor</td>
<td>YOSHIWAKA Motoki</td>
<td>Micro and Nano Electronics</td>
<td>motoki@mech.</td>
</tr>
<tr>
<td>Professor</td>
<td>KAWAMURA Toshiro</td>
<td>Superconductivity Engineering</td>
<td>toshiro@mech.</td>
</tr>
<tr>
<td>Professor</td>
<td>TERADA Nosuke</td>
<td>Superconductor Materials and Devices</td>
<td>nosuke@mech.</td>
</tr>
<tr>
<td>Professor</td>
<td>FURUKAWA Sei</td>
<td>Optical Wireless Communication Systems</td>
<td>sei@mech.</td>
</tr>
<tr>
<td>Professor</td>
<td>KASAMATSU Toshiro</td>
<td>Superconductor Power Application</td>
<td>toshiro@mech.</td>
</tr>
<tr>
<td>Professor</td>
<td>INAGAKI Shige</td>
<td>Ceramic Microengineering</td>
<td>shige@mech.</td>
</tr>
<tr>
<td>Professor</td>
<td>TANAKA Takeo</td>
<td>Power Electronics</td>
<td>takeo@mech.</td>
</tr>
<tr>
<td>Professor</td>
<td>OHKIKI Kenji</td>
<td>Electric Circuit Engineering</td>
<td>kenji@mech.</td>
</tr>
<tr>
<td>Professor</td>
<td>HIRAI Yuji</td>
<td>Material Engineering</td>
<td>yuji@mech.</td>
</tr>
<tr>
<td>Professor</td>
<td>HOSHIRO Takeshi</td>
<td>Systems Control Engineering</td>
<td>takeshi@mech.</td>
</tr>
<tr>
<td>Professor</td>
<td>SHIBA Noriaki</td>
<td>Signal Processing</td>
<td>noriaki@mech.</td>
</tr>
<tr>
<td>Professor</td>
<td>OZAKA Toru</td>
<td>Control Engineering</td>
<td>toru@mech.</td>
</tr>
<tr>
<td>Professor</td>
<td>HAYASHI Minoru</td>
<td>Control Engineering</td>
<td>minoru@mech.</td>
</tr>
<tr>
<td>Professor</td>
<td>KONDO Eiji</td>
<td>Control Engineering</td>
<td>eiji@mech.</td>
</tr>
<tr>
<td>Professor</td>
<td>IDE Hideo</td>
<td>Control Engineering</td>
<td>hideo@mech.</td>
</tr>
<tr>
<td>Professor</td>
<td>FUKUI Yasuyoshi</td>
<td>Control Engineering</td>
<td>yasuyoshi@mech.</td>
</tr>
</tbody>
</table>

### Architecture and Architectural Engineering

<table>
<thead>
<tr>
<th>Title</th>
<th>Name</th>
<th>Specialty Field</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professor</td>
<td>NAKANO Takeshi</td>
<td>Structural mechanics, Continuum Mechanics</td>
<td>takeshi@aae.</td>
</tr>
<tr>
<td>Professor</td>
<td>KURUMA Toru</td>
<td>Computer-Aided Design, Structural Analysis</td>
<td>toru@aae.</td>
</tr>
<tr>
<td>Professor</td>
<td>HASHI Makoto</td>
<td>Seismic Design for Buildings, Seismic Design for Building</td>
<td>makoto@aae.</td>
</tr>
<tr>
<td>Professor</td>
<td>SUGA Takeshi</td>
<td>Regional Revitalization</td>
<td>takeshi@aae.</td>
</tr>
<tr>
<td>Professor</td>
<td>SHIBATA Takeshi</td>
<td>Regional Design, Regional Planning</td>
<td>takeshi@aae.</td>
</tr>
<tr>
<td>Professor</td>
<td>TAKAHASHI Teruaki</td>
<td>Architecture, Urban Planning</td>
<td>teruaki@aae.</td>
</tr>
<tr>
<td>Professor</td>
<td>SHIBATA Akiko</td>
<td>Architectural Design, Design Theory</td>
<td>akiko@aae.</td>
</tr>
<tr>
<td>Professor</td>
<td>TAKAOKA Kenta</td>
<td>Architectural Design, Architectural Planning</td>
<td>kenta@aae.</td>
</tr>
<tr>
<td>Professor</td>
<td>OZAWA Yoshie</td>
<td>Architectural Design-Architectural Planning</td>
<td>yoshie@aae.</td>
</tr>
<tr>
<td>Professor</td>
<td>KUNO Satoshi</td>
<td>Environmental Design</td>
<td>Satoshi@aae.</td>
</tr>
<tr>
<td>Professor</td>
<td>YOSHIDA Masahiro</td>
<td>Environmental Design</td>
<td>masahiro@aae.</td>
</tr>
</tbody>
</table>
### Chemistry, Biotechnology, and Chemical Engineering

<table>
<thead>
<tr>
<th>Title Name</th>
<th>Specialty Field</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tsubotaro</td>
<td>Balanced Catalysis Engineering</td>
<td><a href="mailto:tsubotaro@chem.kyushu-u.ac.jp">tsubotaro@chem.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Hidaka</td>
<td>Chemical Reaction Engineering</td>
<td><a href="mailto:hidaka@chem.kyushu-u.ac.jp">hidaka@chem.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Hirasawa</td>
<td>Process Systems Engineering</td>
<td><a href="mailto:hirasawa@chem.kyushu-u.ac.jp">hirasawa@chem.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Hiraishi</td>
<td>Gravitational Processing, Organic Materials Chemistry</td>
<td><a href="mailto:hiraishi@chem.kyushu-u.ac.jp">hiraishi@chem.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Yau</td>
<td>Inorganic Chemistry</td>
<td><a href="mailto:yau@chem.kyushu-u.ac.jp">yau@chem.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Watanabe</td>
<td>Physical Chemistry</td>
<td><a href="mailto:watanabe@chem.kyushu-u.ac.jp">watanabe@chem.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Akasaka</td>
<td>Environmental Engineering</td>
<td><a href="mailto:akasaka@chem.kyushu-u.ac.jp">akasaka@chem.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Soda</td>
<td>Geologic Fluids Biochemistry, Microbial Technology</td>
<td><a href="mailto:soda@chem.kyushu-u.ac.jp">soda@chem.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Kajiwara</td>
<td>Supramolecular Chemistry</td>
<td><a href="mailto:kajiwara@chem.kyushu-u.ac.jp">kajiwara@chem.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Kohzawa</td>
<td>Polymer Chemistry, Organic-Inorganic Hybrid Materials Chemistry</td>
<td><a href="mailto:kohzawa@chem.kyushu-u.ac.jp">kohzawa@chem.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Hoshida</td>
<td>Biochemical Engineering</td>
<td><a href="mailto:hoshida@chem.kyushu-u.ac.jp">hoshida@chem.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Hoshida</td>
<td>Renewable Energy, Biochemistry</td>
<td><a href="mailto:hoshida@chem.kyushu-u.ac.jp">hoshida@chem.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Tokuhisa</td>
<td>Natural Product Chemistry, Biophysical Chemistry</td>
<td><a href="mailto:tokuhisa@chem.kyushu-u.ac.jp">tokuhisa@chem.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Yamanaka</td>
<td>Molecular Biology</td>
<td><a href="mailto:yamanaka@chem.kyushu-u.ac.jp">yamanaka@chem.kyushu-u.ac.jp</a></td>
</tr>
</tbody>
</table>

### Ocean Civil Engineering

<table>
<thead>
<tr>
<th>Title Name</th>
<th>Specialty Field</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asano</td>
<td>Oceanographical Engineering</td>
<td><a href="mailto:asano@eng.kyushu-u.ac.jp">asano@eng.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Takehara</td>
<td>Estuarine Engineering</td>
<td><a href="mailto:takehara@eng.kyushu-u.ac.jp">takehara@eng.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Takahashi</td>
<td>Marine Environment</td>
<td><a href="mailto:takahashi@eng.kyushu-u.ac.jp">takahashi@eng.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Nishiyama</td>
<td>Coastal Engineering</td>
<td><a href="mailto:nishiyama@eng.kyushu-u.ac.jp">nishiyama@eng.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Hiroshima</td>
<td>Water Resources Engineering</td>
<td><a href="mailto:hiroshima@eng.kyushu-u.ac.jp">hiroshima@eng.kyushu-u.ac.jp</a></td>
</tr>
</tbody>
</table>

### Mathematics and Computer Science

<table>
<thead>
<tr>
<th>Title Name</th>
<th>Specialty Field</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kondo</td>
<td>Mathematical Statistics, Time Series Analysis</td>
<td><a href="mailto:kondo@sci.kyushu-u.ac.jp">kondo@sci.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Yokura</td>
<td>Topology</td>
<td><a href="mailto:yokura@sci.kyushu-u.ac.jp">yokura@sci.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Aoki</td>
<td>Differential Geometry</td>
<td><a href="mailto:aoki@sci.kyushu-u.ac.jp">aoki@sci.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Takahashi</td>
<td>Mathematical Statistics, Data Science</td>
<td><a href="mailto:takahashi@sci.kyushu-u.ac.jp">takahashi@sci.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Shinozaki</td>
<td>Computer Science Network Theory</td>
<td><a href="mailto:shinozaki@sci.kyushu-u.ac.jp">shinozaki@sci.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Saito</td>
<td>Electrical Engineering</td>
<td><a href="mailto:saito@sci.kyushu-u.ac.jp">saito@sci.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Kudo</td>
<td>Computer Science</td>
<td><a href="mailto:kudo@sci.kyushu-u.ac.jp">kudo@sci.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Honda</td>
<td>Computer Science</td>
<td><a href="mailto:honda@sci.kyushu-u.ac.jp">honda@sci.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Tsubouchi</td>
<td>Probability Theory</td>
<td><a href="mailto:tsubouchi@sci.kyushu-u.ac.jp">tsubouchi@sci.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Nakajima</td>
<td>Control Theory</td>
<td><a href="mailto:nakajima@sci.kyushu-u.ac.jp">nakajima@sci.kyushu-u.ac.jp</a></td>
</tr>
</tbody>
</table>

### Information Science and Biomedical Engineering

<table>
<thead>
<tr>
<th>Title Name</th>
<th>Specialty Field</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yorozu</td>
<td>Biomedical Signal Processing</td>
<td><a href="mailto:yorozu@com.kyushu-u.ac.jp">yorozu@com.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Otsuka</td>
<td>Biomedical Control Systems</td>
<td><a href="mailto:otsuka@com.kyushu-u.ac.jp">otsuka@com.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Nakamura</td>
<td>Computer Vision</td>
<td><a href="mailto:nakamura@com.kyushu-u.ac.jp">nakamura@com.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Miura</td>
<td>Computer Graphics</td>
<td><a href="mailto:miura@com.kyushu-u.ac.jp">miura@com.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Tanaka</td>
<td>Biomedical Engineering</td>
<td><a href="mailto:tanaka@com.kyushu-u.ac.jp">tanaka@com.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Tanaka</td>
<td>Computer Engineering</td>
<td><a href="mailto:tanaka@com.kyushu-u.ac.jp">tanaka@com.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Kojima</td>
<td>Computer Systems and Network Group</td>
<td><a href="mailto:kojima@com.kyushu-u.ac.jp">kojima@com.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Nakamura</td>
<td>Computer Networks</td>
<td><a href="mailto:nakamura@com.kyushu-u.ac.jp">nakamura@com.kyushu-u.ac.jp</a></td>
</tr>
</tbody>
</table>

### Physics and Astronomy

<table>
<thead>
<tr>
<th>Title Name</th>
<th>Specialty Field</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kondo</td>
<td>Radiometry, Astronomy</td>
<td><a href="mailto:kondo@ast.kyushu-u.ac.jp">kondo@ast.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Yamaoka</td>
<td>Solid State Physics</td>
<td><a href="mailto:yamaoka@ast.kyushu-u.ac.jp">yamaoka@ast.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Hasegawa</td>
<td>Low-Dimensional Physics</td>
<td><a href="mailto:hasegawa@ast.kyushu-u.ac.jp">hasegawa@ast.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Nakamura</td>
<td>Low-Dimensional Physics</td>
<td><a href="mailto:nakamura@ast.kyushu-u.ac.jp">nakamura@ast.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Kojima</td>
<td>Theoretical Astrophysics</td>
<td><a href="mailto:kojima@ast.kyushu-u.ac.jp">kojima@ast.kyushu-u.ac.jp</a></td>
</tr>
</tbody>
</table>

### Chemistry and BioScience

<table>
<thead>
<tr>
<th>Title Name</th>
<th>Specialty Field</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sakamoto</td>
<td>Cell Biology, Developmental Biology</td>
<td><a href="mailto:sakamoto@biol.kyushu-u.ac.jp">sakamoto@biol.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Kurokawa</td>
<td>Molecular Spectroscopy</td>
<td><a href="mailto:kurokawa@biol.kyushu-u.ac.jp">kurokawa@biol.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Kogure</td>
<td>Animal Physiology</td>
<td><a href="mailto:kogure@biol.kyushu-u.ac.jp">kogure@biol.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Kusumi</td>
<td>Microbiology, Plant Physiology</td>
<td><a href="mailto:kusumi@biol.kyushu-u.ac.jp">kusumi@biol.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Togo</td>
<td>Molecular Biology</td>
<td><a href="mailto:togo@biol.kyushu-u.ac.jp">togo@biol.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Kurokawa</td>
<td>Synthetic Organic Chemistry</td>
<td><a href="mailto:kurokawa@biol.kyushu-u.ac.jp">kurokawa@biol.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Nagahara</td>
<td>Cell Biology, Developmental Biology</td>
<td><a href="mailto:nagahara@biol.kyushu-u.ac.jp">nagahara@biol.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Koga</td>
<td>Molecular Biology</td>
<td><a href="mailto:koga@biol.kyushu-u.ac.jp">koga@biol.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Takakuwa</td>
<td>Biophysical Chemistry, Enzymology</td>
<td><a href="mailto:takakuwa@biol.kyushu-u.ac.jp">takakuwa@biol.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Usui</td>
<td>Synthetic Organic Chemistry</td>
<td><a href="mailto:usui@biol.kyushu-u.ac.jp">usui@biol.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Usui</td>
<td>Molecular Biology</td>
<td><a href="mailto:usui@biol.kyushu-u.ac.jp">usui@biol.kyushu-u.ac.jp</a></td>
</tr>
</tbody>
</table>

### Earth and Environmental Science

<table>
<thead>
<tr>
<th>Title Name</th>
<th>Specialty Field</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nakajima</td>
<td>Volcanic Geology</td>
<td><a href="mailto:nakajima@env.kyushu-u.ac.jp">nakajima@env.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Suzuki</td>
<td>Plant Ecology</td>
<td><a href="mailto:suzuki@env.kyushu-u.ac.jp">suzuki@env.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Nakajima</td>
<td>Geophysical Geology</td>
<td><a href="mailto:nakajima@env.kyushu-u.ac.jp">nakajima@env.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Saito</td>
<td>Biogeography, Animal Ecology</td>
<td><a href="mailto:saito@env.kyushu-u.ac.jp">saito@env.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Naka</td>
<td>Earth Sciences, Earth System</td>
<td><a href="mailto:naka@env.kyushu-u.ac.jp">naka@env.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Nishizaki</td>
<td>Phytogeography</td>
<td><a href="mailto:nishizaki@env.kyushu-u.ac.jp">nishizaki@env.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Mihara</td>
<td>Earth Sciences, Palynology</td>
<td><a href="mailto:mihara@env.kyushu-u.ac.jp">mihara@env.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Kano</td>
<td>Phylogenetics, Palynology</td>
<td><a href="mailto:kano@env.kyushu-u.ac.jp">kano@env.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Kato</td>
<td>Biogeochemistry</td>
<td><a href="mailto:kato@env.kyushu-u.ac.jp">kato@env.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Kato</td>
<td>General Science, Paleobotany</td>
<td><a href="mailto:kato@env.kyushu-u.ac.jp">kato@env.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Kato</td>
<td>Palynology, Paleobotany</td>
<td><a href="mailto:kato@env.kyushu-u.ac.jp">kato@env.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Kato</td>
<td>Paleobotany, Paleoenvironment</td>
<td><a href="mailto:kato@env.kyushu-u.ac.jp">kato@env.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Kato</td>
<td>General Science, Paleoclimatology</td>
<td><a href="mailto:kato@env.kyushu-u.ac.jp">kato@env.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Kato</td>
<td>General Science, Paleobotany</td>
<td><a href="mailto:kato@env.kyushu-u.ac.jp">kato@env.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Kato</td>
<td>Paleoclimatology, Palynology</td>
<td><a href="mailto:kato@env.kyushu-u.ac.jp">kato@env.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Kato</td>
<td>Paleobotany, Paleoclimatology</td>
<td><a href="mailto:kato@env.kyushu-u.ac.jp">kato@env.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Kato</td>
<td>General Science, Paleoclimatology</td>
<td><a href="mailto:kato@env.kyushu-u.ac.jp">kato@env.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Kato</td>
<td>Paleobotany, Paleoenvironment</td>
<td><a href="mailto:kato@env.kyushu-u.ac.jp">kato@env.kyushu-u.ac.jp</a></td>
</tr>
</tbody>
</table>

### Nansei-Tokyo Observatory for Earthquakes and Volcanoes

<table>
<thead>
<tr>
<th>Title Name</th>
<th>Specialty Field</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manaka</td>
<td>Seismology</td>
<td><a href="mailto:manaka@obs.kyushu-u.ac.jp">manaka@obs.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Nagahara</td>
<td>Volcanology</td>
<td><a href="mailto:nagahara@obs.kyushu-u.ac.jp">nagahara@obs.kyushu-u.ac.jp</a></td>
</tr>
</tbody>
</table>

*The Kagoshima University Museum*

<table>
<thead>
<tr>
<th>Title Name</th>
<th>Specialty Field</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Masaoka</td>
<td>Geophysics, Seismology</td>
<td><a href="mailto:masaoka@mus.kyushu-u.ac.jp">masaoka@mus.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Goto</td>
<td>Geology</td>
<td><a href="mailto:goto@mus.kyushu-u.ac.jp">goto@mus.kyushu-u.ac.jp</a></td>
</tr>
<tr>
<td>Manaka</td>
<td>Seismology</td>
<td><a href="mailto:manaka@mus.kyushu-u.ac.jp">manaka@mus.kyushu-u.ac.jp</a></td>
</tr>
</tbody>
</table>

January 1, 2014