

Kumamoto University  
2013-2014



 Kumamoto University

## VISION

Kumamoto University aims to contribute to the community and global society by cultivating intelligent, moral, and skillful people, while working for the creation, inheritance, and development of knowledge, following the spirit of the Fundamental Law of Education and the School Education Law.

## GOALS

### Education

In order to cultivate unique, creative people, the university provides a comprehensive education based on a consistent philosophy followed by all our undergraduate departments and graduate schools.

Our undergraduate departments, with the help of a broad education, inculcate in students the abilities of international communication, adapting to the information age, and thinking and acting independently.

Our graduate schools cultivate highly specialized workers with comprehensive reasoning ability, technical knowledge, and internationally recognized skills, in addition to deep insight into human beings and nature, on the basis of the undergraduate education that the workers have received.

As an institution that is open to the public, the university offers a place where people can engage in lifelong learning.

### Research

The university strives to protect and develop humankind's cultural heritage, while enhancing its capabilities to function as a center of advanced academic research and proactively promote cutting-edge, creative academic research.

In addition, by making use of its unique features, comprehensively deepening knowledge in the fields of human science, social science, and natural science, as well as promoting interdisciplinary research, Kumamoto University is working to contribute to the harmonious coexistence of humans and the environment, as well as sustainable societal development.

### Contributions to local and global communities

As a university located in a regional hub city, the university will strengthen its cooperation with the local community and serve the functions of being a central research facility and cultivating leaders in the local community. By striving to convey our academic culture to the world, the university will contribute to the promotion of local industry and to advancing the provision of information about the culture.

In addition, the university strives to promote international intellectual exchange, educate international students, and train graduate students capable of producing a bilateral international exchange.

## Message from the President



**TANIGUCHI Isao**  
President of Kumamoto University

**W**elcome to Kumamoto University (KU). We are located in Kumamoto City, in the heart of Japan's Kyushu Island. Beautiful Kumamoto is characterized by what we call *RGB* (red, green and blue), the three primary colors of light. The red refers to our active volcano, Mt. Aso, and our warm-hearted people. Green suggests our rich natural environment, and blue is the color of our clear and abundant water resources. Kumamoto is known for its high quality fresh water springs, which provide drinking water to the residents. These are a few of the reasons I feel confident that visitors and international students in Kumamoto can have an enjoyable and high quality life here, KU is one of the oldest universities in Japan, and now has seven faculties, eight graduate schools and 18 research centers/institutes that support a wide spectrum of educational and research activities. Recently, we have been selected by the Government as one of the Japanese 22 Research University (RU-22).

Currently, the university is home to more than 8,100 undergraduate students and 2,000 graduate students, including 408 international students from 42 countries (as of May 2013). For over 100 years our university has been at the forefront of culture, advancing science and technology, and contributing to the development of the Japanese educational system.

Presently, KU will be seeing increased internationalization brought about by international academic and student exchange programs (as of September 2013, we have partnered with 151 institutes from 30 countries and regions), global-collaboration research programs with the world's leading researchers at the Global Centers of Excellence (G-COE: three projects have been successfully completed), and other such international activities. The short-term international student exchange programs are conducted at both KU and our partner universities. The *Kumamoto University Forum* has also been held both inside and outside Japan (including Shanghai, China in 2005, Daejeon, Korea in 2006, Surabaya, Indonesia in 2008, Hanoi, Vietnam in 2010, Shanghai, China again in 2012, and

Surabaya, Indonesia again in 2013).

Through these activities, KU has been contributing to local communities and to global society.

KU has established four fundamental policies in Kumamoto University for you (KU4U), and these have been continuously pursued:

1. Upgrade: To teach the students to be future professionals so that they can make active contributions of a global caliber in a rapidly changing world.
2. Uniqueness: To research our own world-leading studies in the most advanced fields, to create innovation and well-being in society.
3. Union: To collaborate with local and global societies, and to give back to society by providing a promising future through the promotion of education, culture, industry, advanced medical practices and more.
4. Universality: To develop global academic networks and increase internationalization by increasing the numbers of international students and international academic exchange programs, as well as through other means.

In order to keep these promises, we seek to cultivate an open mind with a broad view, a creative imagination, the ability to solve problems, and the aptitude to communicate internationally. We believe this policy will ensure that many competent professionals and leaders of future societies will emanate from our university.

I hope this book helps you to learn more about Kumamoto University and its activities.

A handwritten signature in black ink that reads "Isao Taniguchi". The signature is written in a cursive, flowing style.

President of Kumamoto University



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# HISTORY

## 1874 Kumamoto Teachers College established

## 1885 Kumamoto Pharmaceutical College established

## 1887 The Fifth High School established

## 1896 Kumamoto Medical College established

## 1897 Kumamoto Technical College established

There were five institutions of higher education in Kumamoto during the Meiji Era which eventually united to form Kumamoto University. Among these institutions was The Fifth High School, which was a center for higher learning in western Japan, and provided students with preparatory education to enter the Japanese Imperial Universities. A number of foreign teachers joined the school to offer western culture and knowledge to the students.

These young men, aged from their teens to late twenties, resided in a dormitory, and built a tradition of student community as well as lasting friendships.

## 1949 Kumamoto University established

Kumamoto University was established under the National School Establishment Law that reformed the preceding Japanese educational system. The new university incorporated the older institutions described above.

At its establishment, The Fifth High School comprised six departments, with an enrollment of approximately 1,100 students.

Discussion of the school's curriculum began soon after the founding of the school. After the Graduate School of Medicine was established in 1955, other graduate schools were subsequently established within the university.

The establishment of research and education institutions within the university was started early on. In the 1950s, both Kumamoto University Hospital and the University Library were completed. In addition, a number of research centers that conduct the highest level of scholarly research have been consecutively established over the past 20 years.

## 2004 Kumamoto University enters the 21st Century

The acceptance of government-sponsored international exchange students started around 1960, but records indicate that several international exchange students studied in the Faculty of Medicine as early as the 1950s. Since the 1960s, though, the number of international students has been steadily increasing. There were approximately 50 international students at the university in 1984, and that number increased to over 300 twenty years later in 2004.

Since Kumamoto University became a National University Corporation in 2004, the university has been ushering in an era of change. Nevertheless, the university will still continue to strive for further advancements in education, research, and medical care based on the knowledge and experience it has gained since it was first established, in order to contribute to society in the 21st century.



## HISTORY OF THE UNIVERSITY HOSPITAL

location in 1901.

In 1949, after Kumamoto Medical College was absorbed into Kumamoto University, the name of the hospital was changed to Kumamoto University Hospital. It started with a system of eleven medical departments.

In the past several decades, in order to respond to the segmentation and advancement of medical services, the hospital established central consultation facilities as well as new medical departments with the aim of increasing efficiency, among other improvements.

Kumamoto University Hospital has grown to become a general hospital with technologically advanced medical facilities and a comprehensive medical system. It is still continuing to make advancements in its aim to become a university hospital that can continue to provide quality medical care in the 21st century.

The history of Kumamoto University Hospital goes back to the opening of the Hosokawa Clan Hospital in 1870. After being reorganized and relocated several times, the hospital was moved to its current



# HISTORY

## HISTORICAL FIGURES



**Lafcadio Hearn**  
(1850-1904)

Though he was of Irish extraction, he was born in Greece. He came to Japan in 1890. In 1891, he took up his new post at The Fifth High School. His work "Ghost Stories" (*Kaidan*) introduces Japan's mysterious traditions in English, and is widely known.



**Natsume, Soseki**  
(1867-1916)

In 1896, he came to Kumamoto to take up his new post as a lecturer at The Fifth High School. He was residing in Kumamoto during the time he went on the trip that appears in his famous novel "*Kusamakura*".



**Ikeda, Hayato**  
(1899-1965)

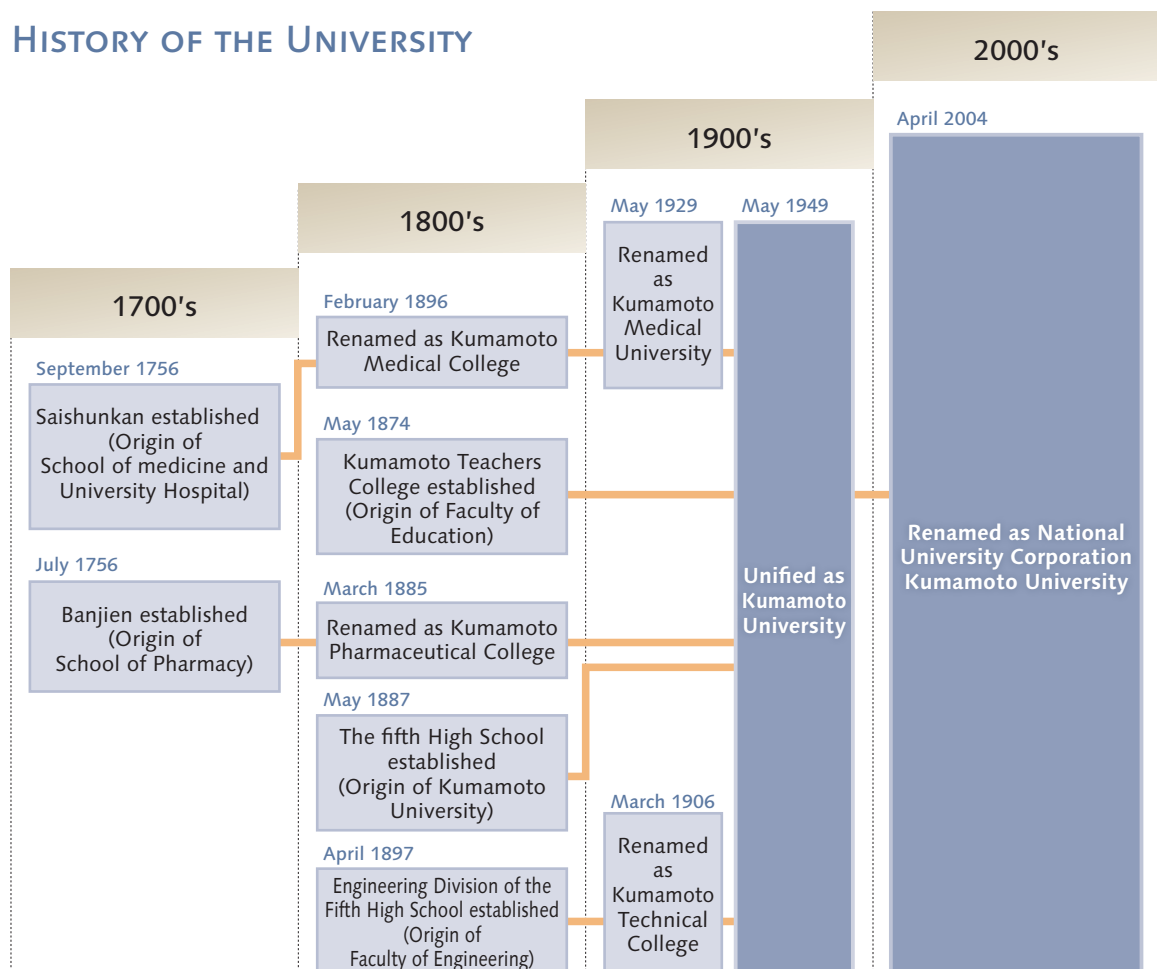
Hayato Ikeda was a politician who was born in Hiroshima prefecture and studied at The Fifth High School. He became the Prime Minister of Japan in 1960, and his administration led Japan for a prolonged time during its era of high economic growth.



**Sato, Eisaku**  
(1901-1975)

Eisaku Sato was a politician who was born in Yamaguchi prefecture and studied at The Fifth High School. He became the Prime Minister of Japan in 1964, and played a key role in the return of Okinawa to Japanese rule and the creation of Japan's "Three Non-Nuclear Principles." He received the Nobel Peace Prize in 1974.

## HISTORY OF THE UNIVERSITY



# KUMAMOTO UNIVERSITY MUSEUM

The main building of the former Fifth High School, now the Memorial Museum, is the symbol of Kumamoto University. The building has been designated as a National Cultural Property, along with the Chemical Laboratory, the main gate, and the Museum of the Engineering Faculty. We also preserve the tangible cultural properties of the Yamazaki Memorial Hall on the Honjo campus and the Kumayaku Museum on the Oe campus. We are planning to create the “Kumamoto University Museum,” which will consist of these buildings and artifacts. As the first step in this process, the university initiated the renewal of the Memorial Museum of the Fifth High School in 2006, and is now gathering historical documents and materials. An exhibit is currently open to the public.

## 五高記念館



<http://ewww.kumamoto-u.ac.jp/dept/fifth/>

## The Memorial Museum of the Fifth High School (National Cultural Property)

The Fifth High school was established for young boys as the most prominent educational institution in Kyushu in 1887. Jigoro Kano, Yakumo Koizumi (Lafcadio Hearn) as well as Soseki Natsume were among the more celebrated professors who taught here. Even after 100 years, the original Fifth High School building is still well-maintained and very much appreciated by the public.

Hours	10:00 – 16:00 (Entrance allowed up to 15:30)
Days Closed	Every Tuesday, August Obon holidays Year-end and New Year's holidays National holidays between December and February only
Admission	Free

## 正門(赤門)



## The Front Gate (The Red Gate) (National Cultural Property)

The front gate of the Fifth High School is popularly known as the Red Gate (AKAMON) and is still the dignified main gate of the north campus of Kumamoto University.

## 化学実験場



## The Chemical Laboratory of the Fifth High School (National Cultural Property)

This building was used as the lab for chemical experiments. There is a row of labs as well as a tiered lecture hall with a corridor situated on the west side.

## 工学部研究資料館



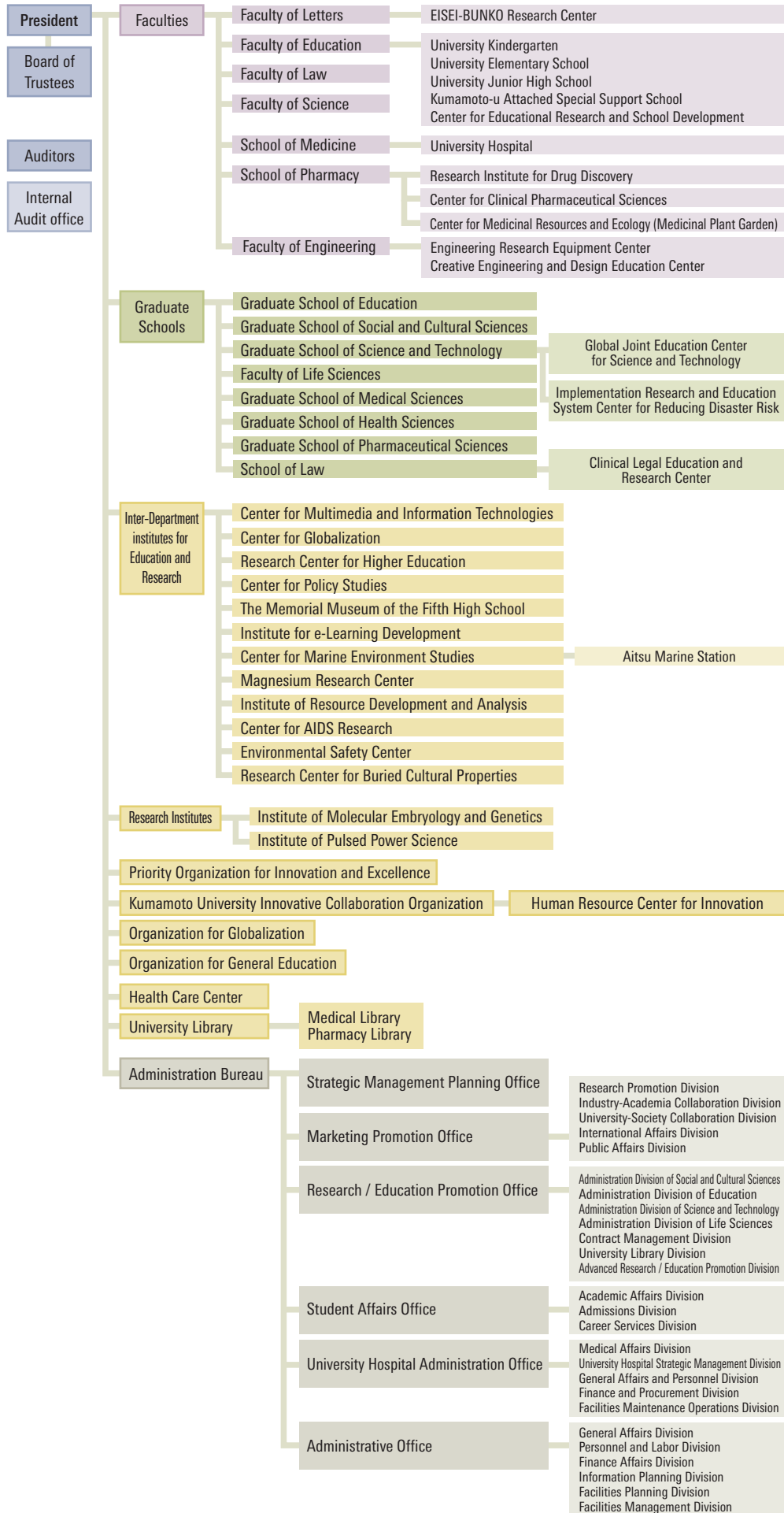
## Museum of the Engineering Faculty (National Cultural Property)

This building was constructed in 1908 as a machine shop for students of the former Kumamoto Junior College of Technology. The exhibits include various machines and tools still in working condition. The public is welcome to visit the museum during Open Campus Days, the University Festival and of course the following Days.

Days Opened	The third Friday of the month (13:00–16:00)
Admission	Free



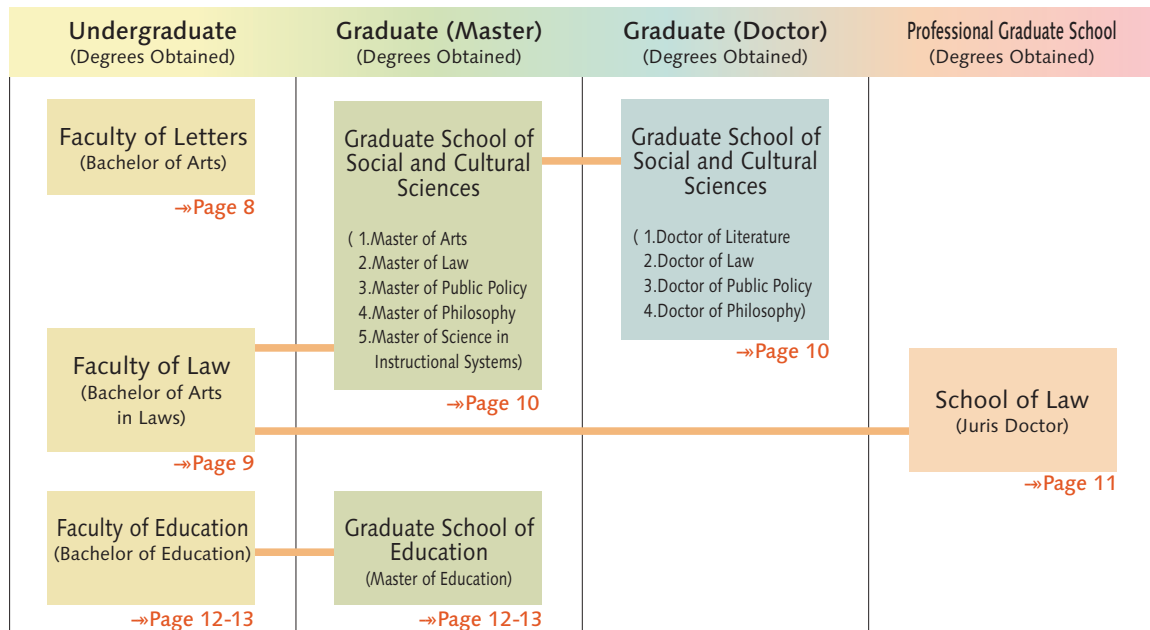
# ORGANIZATION



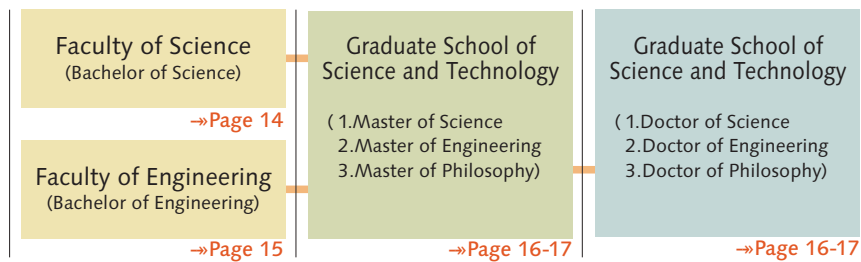


# UNDERGRADUATE AND GRADUATE COURSES

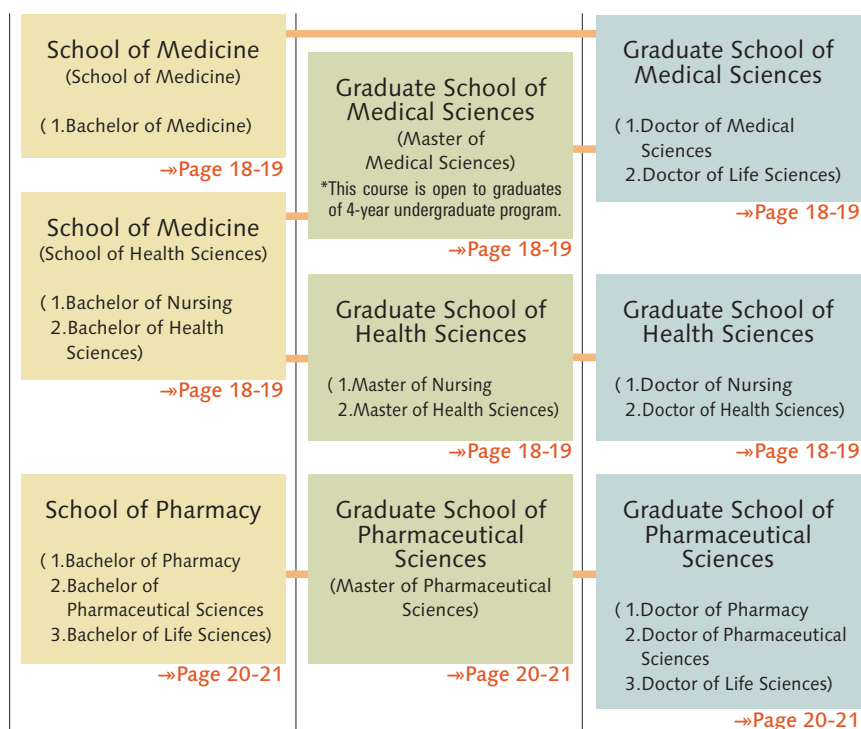
## ■ Humanities and Social Sciences ■



## ■ Science and Technology ■



## ■ Life Sciences ■



The above chart is an example of pursuing higher education between undergraduate and graduate courses, but is not limited to this chart.

## FACULTY OF LETTERS

■ 文学部 ■



### Faculty of Letters

- **Department of Integrated Human Studies**  
Human Sciences, Socio-human Studies, Regional Science
- **Department of History**  
Japanese History and Archaeology, Modern World Systems
- **Department of Literature**  
East-Asian Languages and Literature, Euro-American Languages and Literature, Transregional Studies of Language and Literature
- **Department of Communication and Information Studies**  
Communication and Information Studies

### Faculty of Letters

The Faculty of Letters was established in May 1949 as part of the new Faculty of Law and Letters. This faculty was then split into the Faculty of Law and the Faculty of Letters in 1979. The education and research framework of the Faculty of Letters includes four educational departments, which are the Department of Integrated Human Studies, the Department of History, the Department of Literature, and the Department of Communications and Information Studies. The Faculty welcomes 170 new students each year. There are approximately 70 faculty members who are conducting educational research in a broad number of areas, including the humanities, social studies and cultural studies.

To satisfy new and contemporary needs, three interdisciplinary courses that made use of an educational system that allowed for cross-discipline learning were established in 1997. In 2005, those courses were disbanded and the Department of Communication and Information Studies was established. The CIS Department was estab-

lished to help students acquire outstanding abilities in international communication using English, as well as to teach them to excel at processing information. There are numerous international students among the Faculty, which is striving to develop people who can contribute to the international community through educational research.

In April 2009, the EISEI-BUNKO Research Center was established as our affiliate institute. Its purpose is to enable analysis of the scholarly values of the historical materials in the EISEI-BUNKO collection, and to promote academic advances. The Center also will be home to the development of a new interdisciplinary research field and organization. Furthermore, as a cultural enterprise, we will cooperate with outside administrative bodies to conduct forums and deliver public lectures, to allow the general public to disseminate the benefits of our research.

URL: <http://www.let.kumamoto-u.ac.jp/en/>



Faculty of Law

- Department of Law
  - Division of Legal Culture, Division of Civil Law, Division of Modern Legal Policy, Division of Public Policy

Faculty of Law

The Faculty of Law, which grew out of the Fifth High School, was established as part of the Faculty of Law and Letters of Kumamoto University under the new system in 1949. In 1979, the Faculty of Law and Letters was reorganized into two faculties, the present Faculty of Law and the Faculty of Letters. The Faculty of Law had two departments, Law and Public Policy, before 2004 when the School of Law was established as a graduate course. The two departments of the Faculty of Law were then merged into one, the Department of Law. The Faculty of Law adopts a two-course system, with the Course of Law and the Course of Public Policy, between which students choose at the beginning of their third year. Now the Faculty devotes itself to an education in the basics and the fundamentals of law and public policy.

The educational goal of the Faculty is to develop students' abilities, give them a solid grounding in legal knowledge, teach them to think, express themselves, and debate in legal and political terms, and to find solutions to issues and disputes in society. To these ends, the Faculty of Law offers students a personalized education, including compulsory and small seminar-style classes, one of which students are required to take each year.

URL:  
[http://ewww.kumamoto-u.ac.jp/dept/f\\_law/](http://ewww.kumamoto-u.ac.jp/dept/f_law/)



### Graduate School of Social and Cultural Sciences

- **Master's Course**  
Division of Public Policy Studies, Division of Jurisprudence,  
Division of Modern Social Studies, Division of Cultural Sciences,  
Division of Instructional Systems
- **Doctoral Course**  
Division of Human and Social Sciences, Division of Cultural Sciences,  
Division of Instructional Systems

### Graduate School of Social and Cultural Sciences

The Graduate School of Social and Cultural Sciences was established in April, 2002 as a three-year independent, interdisciplinary and comprehensive Doctoral Program based on specialized fields in the Faculty of Letters and the Faculty of Law. In April, 2006, the Division of Instructional Systems (master's program) which was designed to foster e-learning professionals, was founded. In April, 2008, the new Graduate School of Social and Cultural Sciences, which consists of the Master's Program and the Doctoral Program, was created by reorganizing and integrating the existing Graduate School of Social and Cultural Sciences, the Graduate School of Letters (master's program), the Graduate School of Law (master's program), and the Division of Instructional Systems.

In addition to the traditional academic courses (8 courses), the Master's Program offers 7 newly-founded professional courses, including Public Policy; The Legal Profession; Negotiation, Conflict Resolution, and Organizational Management; East Asian Business Communi-

cation; Cultural Administration and Curators; Japanese Language Teaching for High School; and English Language Teaching. These courses help to realize an education that responds to a wide range of social needs.

The Doctoral Program aims to cultivate highly-specialized professionals and researchers. It is comprised of three divisions. The Human and Social Sciences Division pursues development and policy studies of new social systems, and their theoretical groundings. The Cultural Sciences Division is concerned with research into various aspects of human culture and the formulation of cultural policies for contemporary society. And the third is the Instructional Systems Division. All the three doctoral divisions have been created to open the door for adult students and foreign students, in addition to those who proceed from the Master's Program.

URL: <http://ewww.kumamoto-u.ac.jp/dept/social/>





## School of Law

## ■ Legal Professional Course

### School of Law

The School of Law was established in April 2004 for the purpose of training students to become legal professionals who will be active in the 21st century, and who will have the ability to respond to the special legal needs of local communities and to solve various global legal problems. A total of 22 students (including a few students in the shortened two-year course) are accepted into the program each year. The full-time teaching staff of 18 people comprises 5 practitioner-teachers, including a public prosecutor and practicing lawyers. The School of Law emphasizes the fostering of legal professionals with a process that focuses on education of the law in association with the national bar examination and legal apprenticeships. Classes are separated into four broad categories, which are the fundamentals of theoretical law, funda-

mentals of practical law, classes adjoined with the fundamentals of the law, and developing and current subjects. The School of Law's program uses a simulated and systematic education that provides its students with a practical grounding that links together legal theory and legal practice – a distinctive education that can meet the needs of a new legal era.

Clinical Legal Education and Research Center (the Law Center) was established in September 2006 with the purpose of providing education and research that specializes in legal practice.

URL: <http://ewww.kumamoto-u.ac.jp/dept/lr/>

# FACULTY OF EDUCATION

## GRADUATE SCHOOL OF EDUCATION

■ 教育学部 ■

■ 教育学研究科 ■



### Faculty of Education

#### ■ Curricula

Elementary School Teacher, Junior High School Teacher, Special Needs Education Teacher, School Health Teacher, Local Community, Lifelong Sports and Welfare

#### ■ Departments

Japanese, Social Studies, Mathematics, Natural Science, Music, Art, Health and Physical Education, Industrial Technology, Living Sciences, Foreign Languages (English), Special Education, School Health, Pedagogy, Psychology

### Graduate School of Education

Educational Practices Major, School Subject Methods and Practices Major

## ■ Faculty of Education

The Faculty of Education was established in May 1949 under the new Kumamoto University system. It originated from schools such as the Kumamoto Teacher's High School created in 1874.

The Faculty of Education currently has four courses. One course trains teachers for the elementary school and junior high school levels, while a second trains teachers for other types of schools. The third course is a Lifelong Sports and Welfare course, established in April 1997. Its goal is to train specialists in educational areas involving social education and welfare. The final course is a Local Community Social Co-Existence course, established in April 2000.

In addition, at the Center for Educational Research and School Development, students can receive advice on matters related to educational practice, particularly what to do when problems occur on the job. The Center also engages in practical research.

### ■ Institution ■

#### Center for Educational Research and School Development

The Center analyzes and seeks practical solutions to the problems that arise in education. It also conducts research on what types of classes and curricula meet contemporary needs. To achieve these aims, it has established an Education Clinic Division, comprised of an Education Consultation Section and an Education Organization Section, and Education Curriculum Division. It also develops comprehensive, practical activities in cooperation with related organizations.

### ■ Special Courses ■

#### Course in Special Needs Education

This course is geared toward incumbent teachers as well as current students from Kumamoto University and toward students with a BA degree or higher from other universities. Through specialized instruction in special education, the course helps students to fulfill the requirements for their Diploma in Special Needs Education.

The course is designed to produce teachers who have specialized knowledge in the field.

#### Course in School Health

This course is meant to produce highly-qualified special education teachers. It is designed for those who already have their nursing license, as well as those who are in the process of obtaining it. The curriculum consists of general education subjects, specialized subjects in special education, and specialized subjects in teaching.

Students receive instruction with a balance of theory and practice.

## ■ Graduate School of Education

The Graduate School of Education has offered a master's course program since April 1986. The department currently offers two majors based on the three organizational principles of practical application, interdisciplinary education and current practice: Educational Practices Major - school education (pedagogy and psychology), special needs education, and school health nursing education - and School Subject Methods and Practices Major - Language Education (Japanese and English), Science and Mathematics Education (science and mathematics), Social Science Education (social studies), Technology and Human Life Science (technology education and home economics education), and Arts and Sports Education (music, art, health and physical education). Since the aim of the department is to improve the quality and qualifications of teachers, in-service teachers are also admitted. The school provides instruction in and conducts research on educational practices.

Students who complete the Graduate School of Education course receive a Master of Education degree. Students can also work to receive their teaching certificate while at the University.

URL: <http://www.educ.kumamoto-u.ac.jp/e/>



## FACULTY OF Science

■ 理学部 ■



### Faculty of Science

- **Department**  
Department of Science
- **Courses**  
Mathematics, Physics, Chemistry, Earth and Environmental Sciences, Biology

### Faculty of Science

The Faculty of Science was established in May 1949 as one of the faculties under the new Kumamoto University system. It grew out of the science department of the Fifth High School, which was established in October 1887, and one part of Kumamoto Kogyo Senmon (Technical) High School. The Faculty of Science underwent some dramatic changes in 2004. The existing departments were merged into one department containing 5 courses. In addition, students are now able to decide what kind of educational program they want during their first two years after entering the university. Then, after accessing what course is right for their own needs, students choose a major in their junior year.

At the same time, the Faculty of Science provides detailed educational services that are targeted to individual students through the implementation of such things as a departmental staff tutoring system.

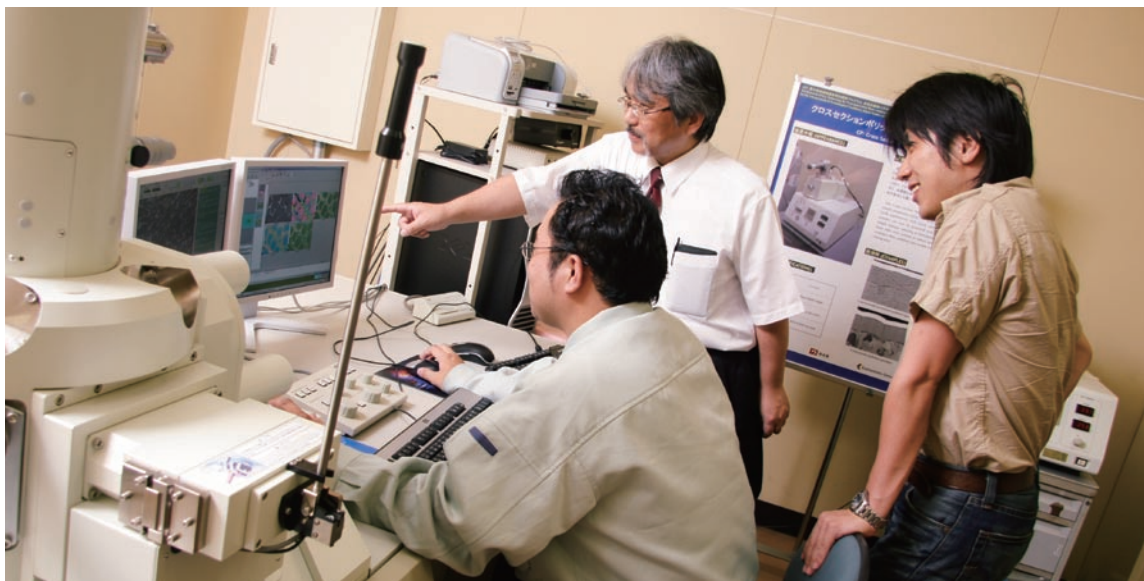
While conducting fundamental research, which is what

they specialize in, the Faculty of Science also actively conducts applied research in specific fields that meets the needs of communities and society. Although the path students take after they graduate usually involves obtaining employment in fields such as the government and other public offices, business, or the teaching profession, many students also choose to continue their education by entering a master's program.

URL:

<http://www.sci.kumamoto-u.ac.jp/index.html>





## Faculty of Engineering

- **Department of Applied Chemistry and Biochemistry**  
Chemistry for Molecular Engineering, Chemistry for Materials Science, Biochemical Engineering, Bio-related Molecular Science
- **Department of Materials Science and Engineering**  
Eco-materials, Microstructure and Interface Control and Engineering, Material Physical Properties, Advanced Materials, Environmental Engineering Materials, Functional Materials Design
- **Department of Mechanical System Engineering**  
Intelligent Machine Design and Manufacturing, Intelligent System for Measurement and Control, Thermal and Fluid Engineering, High Pressure Engineering and Material Processing
- **Department of Civil and Environmental Engineering**  
Urban and Regional Design, Disaster Prevention, Infrastructural Development, Environmental Conservation
- **Department of Architecture and Building Engineering**  
Planning and Design, Environmental Engineering and Utilities, Structures and Construction, Building Production
- **Department of Computer Science and Electrical Engineering**  
Computer Science and Communication Engineering, Frontier Technology for Energy and Devices, Human and Environmental Informatics
- **Department of Mathematics and Engineering**  
Information Mathematics, Analysis of Complex Systems and Nonlinear Partial Differential Equations, Probability, Statistics
- **Department of Solar Cell and Environmental Energy (Endowed Chair)**

## Faculty of Engineering

The origin of the Faculty of Engineering was the Department of Engineering of the Fifth High School, which was established in 1897. Since then, the university has turned out more than 30,000 alumni who are working actively all around the world. Thanks to an existing alumni network, graduates have been able to find work with many quality companies. Many other students choose to continue their education in a master's program after they graduate. The goals of the Faculty of Engineering are two-fold. First, it aims to contribute to the well-being of humankind and the development of society by creating the technology to help society co-exist with the global environment. Its second aim is to foster people with a rich sense of humanity who can contribute to the global and local communities by looking at things from a global point of view.

## Institution

### Engineering Research Equipment Center

Various measuring and testing instruments (LVP-SEM, XRD, ESCA, etc - about 20 models) are made available for advanced experiments and research by allowing their shared use.

### Creative Engineering and Design Education Center

The center cultivates technologists with a rich sense of creativity and the ability to build innovations. It does this by developing and providing outstanding educational programs at the Faculty of Engineering.

URL:  
<http://www.eng.kumamoto-u.ac.jp/english/index.html>



### Master's Course

- **Science**
  - Department of Physics
  - Department of Chemistry
  - Department of Earth and Environmental Sciences
  - Department of Biological Sciences
- **Mathematics**
  - Department of Mathematics
  - Department of Applied Mathematics
- **New Frontier Sciences**
  - Department of New Frontier Sciences
- **Applied Chemistry and Biochemistry**
  - Department of Applied Chemistry and Biochemistry
- **Materials Science and Engineering**
  - Department of Materials Science and Engineering
- **Mechanical System Engineering**
  - Department of Advanced Mechanical Systems
  - Department of Intelligent Mechanical Systems
- **Computer Science and Electrical Engineering**
  - Department of Computer Science and Communication Engineering
  - Department of Frontier Technology for Energy and Devices
  - Department of Human and Environmental Informatics
- **Civil and Environmental Engineering**
  - Department of Environmental Conservation Engineering
  - Department of Environmental Management and Planning
- **Architecture**
  - Department of Architecture and Environment Planning
  - Department of Building Materials and Structures
- **Frontier Technology for Electrical Energy (Endowed Chair)**

## Doctoral Course

### ■ Science

Department of Mathematics  
Department of Physics  
Department of Chemistry  
Department of Earth and Environmental Sciences  
Department of Biological Sciences

### ■ New Frontier Sciences

Department of New Frontier Sciences

### ■ Advanced Technology

Department of Applied Chemistry and Biochemistry  
Department of Materials Science and Engineering  
Department of Advanced Mechanical Systems  
Department of Intelligent Mechanical Systems

### ■ Computer Science and Electrical Engineering

Department of Computer Science and Communication Engineering  
Department of Frontier Technology for Energy and Devices  
Department of Human and Environmental Informatics  
Department of Applied Mathematics

### ■ Architectural and Civil Engineering

Department of Environmental Conservation Engineering  
Department of Environmental Management and Planning  
Department of Architecture and Environment Planning  
Department of Building Materials and Structures

## ■ Graduate School of Science and Technology

In the spring of 2006, the Graduate School of Science and Technology was formed as a new research graduate school by integrating the teaching staff of the Faculty of Science and that of the Faculty of Engineering to conduct post-graduate education with a strong focus on research. The departments in the Graduate School are divided into two groups. The first group consists of 17 departments in the Master's course and the Doctoral course, all of which aim to conduct research and education to help develop specialized knowledge and expertise obtained from the Faculties of Science and Engineering. The second group comprises 1 department in New Frontier Science. Here,

we mean to conduct cutting-edge research and education with an increased emphasis on interdisciplinary concepts through continuation of the Master's and Doctoral courses.

The goal of the Graduate School of Science and Technology is to instill understanding and knowledge in students through interdisciplinary and integrated education and research, as well as to nurture individuals who are able to approach problems arising from a wide range of complex issues with leadership and creativity.

URL:

[http://www.gsst.kumamoto-u.ac.jp/index\\_en.html](http://www.gsst.kumamoto-u.ac.jp/index_en.html)

## SCHOOL OF MEDICINE

## GRADUATE SCHOOL OF MEDICAL SCIENCES

## GRADUATE SCHOOL OF HEALTH SCIENCES

■ 医学部 ■

■ 医学教育部 ■

■ 保健学教育部 ■



### School of Medicine

#### ■ School of Medicine

**Subjects** → Molecular and Cellular Biology, Molecular Genetics, Anatomy and Histology, Physiology and Biochemistry, Microbiology and Immunology, Pathology and Pharmacology, Social and Environmental Medicine, Internal Medicine, Surgery, Developmental Medicine, Bioethics, Sensory and Motor Medicine, Clinical Neurology and Psychiatry, Integrated Medicine

#### ■ School of Health Sciences

**Courses** → Course of Nursing, Course of Radiological Sciences, Course of Medical Laboratory Sciences

### Graduate School of Medical Sciences

#### ■ Master's Course

Medical Sciences

#### ■ Doctoral Course

Medical Sciences

### Graduate School of Health Sciences

#### ■ Master's Course

Nursing, Health Sciences

#### ■ Doctoral Course

Nursing, Health Sciences



## School of Medicine

The School of Medicine comprises the two sub-schools of the six-year School of Medicine and four-year School of Health Sciences. Graduates from the former become medical physicians after passing the National Exam for Medical Practitioners, while graduates from the latter become nurses, radiological technicians, and clinical technologists after passing the national exam for their specialty.

The School of Medicine has produced over 10,000 graduates since it was established as the independent Kumamoto Medical School in 1896. Specialized instruction in the field of medicine is conducted by faculty members of Medical and Life Sciences. The medical school constructs a curriculum framework that mostly reflects actual medical research and medical care. The curriculum focuses on fostering medical doctors who acquire a high level of personal communication skills. A new medical education and library building was completed in early autumn of 2008. The Center for Medical Education and Research was founded in October 2010 to promote a particular mission for education of medical professionals. This Education Center carries out the research on educational systems, the curriculum reform of medical school, and education of clinical medicine and practical techniques, etc.

The School of Health Sciences was established in October 2003 by integrating the University's former three-year College of Medical Science (which includes the special course of study in toxicology) with the University's Department of Nursing from the Faculty of Education. The school aims to provide a spiritually rich education based on respect for life and humanity, along with a high level of specialized knowledge, and is cultivating medical staff, researchers, and educators that are highly-qualified to be able to contribute to many facets of society as members of medical teams.

## Graduate School of Medical Sciences

The Graduate School of Medical Sciences was remodeled and established in April 2003 as a graduate school educational institution with the aim of cultivating medical researchers, educators, and advanced medical staff.

The graduate school consists of a four-year doctoral course and a two-year master's course that was established in 2002. The master's course (in Medical Sciences)

was created in response to the upsurge in medical and biological research, as well as societal needs. The course is designed for graduates of 4-year undergraduate programs. Each academic year sees 20 students enrolled, for a total of 40 students. Graduates of the master's course are encouraged to continue their education by enrolling in the doctoral course. The doctoral course (Medical Sciences specialty) contains 88 students per academic grade, for a total of 352 students. Personalized education with research guidance is supplemented by courses in experimental medicine and graduate school seminars. Students complete the course by publishing their original research results in an international academic journal and writing a comprehensive thesis.

Courses are taught by instructors who belong to 91 diverse research areas and medical care fields from the following: the Faculty of Life Sciences, Kumamoto University Hospital, the Health Care Center, the Institute of Resource Development and Analysis, the Center for AIDS Research, and the Institute of Molecular Embryology and Genetics.

URL:<http://www.medphas.kumamoto-u.ac.jp/en/medgrad/index.html>

## Graduate School of Health Sciences

The Graduate School of Health Sciences was established in April 2008, and its doctoral program started in April 2010. The graduate school consists of the nursing course, the radiological sciences course and the medical laboratory sciences course. The school aims to foster specialists and produce researchers and educators who can incorporate a wide range of advanced medical knowledge to establish and develop the educational system of health sciences. Each department requires 2 years of study for the master's program and 3 years for the doctoral program.

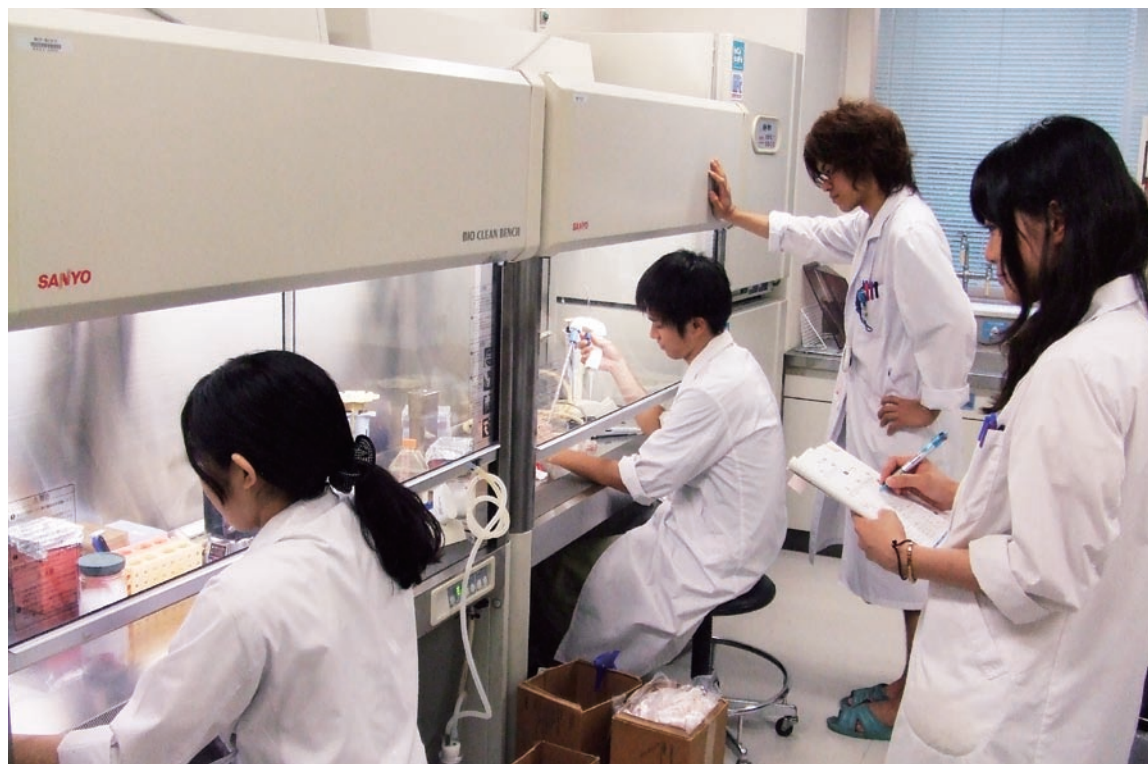
Each academic year of the master's program has room for a total of 16 students. Students can obtain a master's degree in either Nursing or Health Sciences. Each academic year of the doctoral program is limited to 6 students. Conditions for completion of the doctoral program require a successful review of a doctoral thesis and a passing grade on the final examination. Students can obtain a doctor's degree in either Nursing or Health Sciences.

# SCHOOL OF PHARMACY

■ 薬学部 ■

# GRADUATE SCHOOL OF PHARMACEUTICAL SCIENCES

■ 薬学教育部 ■



## School of Pharmacy

- **Department**  
School of Pharmacy, School of Pharmaceutical and Life Sciences
- **Subject**  
Molecular and Genomic Pharmacy, Medicinal Chemistry, Life and Environmental Sciences, Clinical Pharmacy, Biomedical Polymer Sciences, Drug Delivery Sciences

## Graduate School of Pharmaceutical Sciences

- **Master's Course**  
**Pharmaceutical and Life Sciences** → Drug Delivery, Bio-Pharma, Medicinal Chemistry, Life Science
- **Doctoral Course**  
**Clinical Pharmacy** → Pharmaceutical Health Care and Sciences, Clinical Pharmaceutical Sciences  
**Pharmaceutical and Life Sciences** → Drug Delivery, Bio-Pharma, Medicinal Chemistry, Life Science

### School of Pharmacy

The School of Pharmacy is based upon the belief that the pharmaceutical sciences are an integral part of science and that it contributes greatly to society in medicinal applications. Students acquire a basic knowledge of the creation, production and management of pharmaceutical products, covering environmental, health and sanitation issues as well as many other skills required to become a pharmacist. The school strives to produce creative graduates who are capable of the highest levels of pharmaceutical thought as well as basic logic, both of which

are essential to life sciences. The school conducts basic practical and clinical training together with modern lectures that focus on education, from the three perspectives of knowledge, technique, and bedside manner.

After graduating, students go on to work in various fields, as pharmacists in hospitals, pharmacies, pharmaceutical and chemical companies or in government and other public facilities. However, over half of the graduates continue their education at graduate level to become either pharmaceutical researchers or advanced pharmacists.

In 2006, the pharmaceutical sciences course was split into the School of Pharmacy, a six-year course for the cultivation of pharmacists, and the School of Pharmaceutical and Life Sciences, a four-year course focusing on the training of researchers.

#### ■ Institutes ■

##### Research Institute for Drug Discovery

The Research Institute for Drug Discovery (RIDD) was created as a research facility and is staffed by members of the Pharmaceutical Sciences faculty at Kumamoto University. RIDD is made up of researchers from various fields connected with drug discovery and development, focusing on the development of novel clinical drugs and the education of outstanding researchers in this field. The first institute of its kind at a Japanese national university, the RIDD comprises four departments - Project Research Department, Private Enterprise Joint Development Department, Local Network Department and Research Support Department. The RIDD works to discover and develop therapeutically beneficial drugs that will bear the label, "Made by Kumamoto University."

##### Center for Clinical Pharmaceutical Sciences

The Center for Clinical Pharmaceutical Sciences (CCPS) was founded as a research and education institute for the Faculty of Pharmaceutical Sciences in April 2008. This facilitated the need for collaboration between the Drug Development Department and the Drugs Improvement Department in the pharmacy school. The CCPS performs this task by providing a Department of Education and a Department of Clinical Research, and is aiming to expand and promote education in the appropriate use of drugs. We welcome the involvement of our regional pharmacists and are committed to conducting research and educational activities that will advance the appropriate use of drugs.

##### Center for Medicinal Resources and Ecology (Medicinal Plant Garden)

Containing roughly 1,000 varieties of medicinal plants in the specimen and tree garden (3,100m<sup>2</sup>), the Medicinal Plant Garden contributes to edu-

cation in Pharmaceutical Science studies. The garden is home to a host of medicinal plants for use in studies and also contains a seedling nursery in the cultivation farm (3,700m<sup>2</sup>). The lab is devoted to the continued research and study of physiologically active materials taken from medicinal plants, genetic maintenance of medicinal plants, and acquisition of medicinal plants and the cultivation of medicinal plants. Seminars offered at the garden detail Kanpo Medicine and medicinal plants. These seminars are open to the general public and students alike.

##### ■ Graduate School of Pharmaceutical Sciences

The Graduate School of Pharmaceutical Sciences was established in April 2003 by partially integrating the faculties of the Institute of Molecular Embryology and Genetics and the Institute of Resource Development and Analysis. This was preceded by the creation of the Faculty of Medical and Pharmaceutical Sciences by the merging Medical Sciences and Pharmaceutical Sciences.

Graduate students at the Graduate School of Pharmaceutical Sciences are taught by teaching staff from the Faculty of Life Sciences (founded in January 2010 by reorganizing the Faculty of Medical and Pharmaceutical Sciences), the Institute of Molecular Embryology and Genetics, the Institute of Resource Development and Analysis and Kumamoto University Medical School Hospital. By taking advantage of the individual strengths of each faculty member, a great number of programs can be provided by faculty members from the pharmaceutical sciences and medical fields cooperating to give special lectures in Bioethics and Medical Oncology and Translational Research, as well as in bioethical and logical diagnostics. In the Graduate School of Pharmaceutical Sciences, education is based on the foundation of basic pharmaceutical knowledge acquired during undergraduate studies.

The school aims to cultivate pharmaceutical researchers and advanced pharmaceutical specialists that can act independently and provide skilled leadership in a wide variety of fields, including bioscience research, the creation of medicinal products, and clinical, environmental and public health administration.

#### URL:

<http://www.pharm.kumamoto-u.ac.jp/phagrad/en/>



## FACULTY OF Life Sciences

■ 生命科学研究部 ■



### Faculty of Life Sciences

The explosive growth in life science research in recent years has caused the traditional boundaries between the fields of medical, health science and pharmaceutical research to be substantially disappeared. Due to that, and to the striking development of research in the area of interdisciplinary studies, we are now in an era where the integration of these fields has become essential. In order to respond to these developments, the former Graduate Schools of Medical Sciences, of Pharmacy and of Health Sciences were integrated. As result, a graduate school with a new system that has a separate research department (faculty-only organization) and education department (education organization) was established in April 2003. The faculty of Life Sciences is composed of 3 divisions, 13 major departments, and 77 departments of research, and is one of the largest research-oriented organizations with medical and pharmaceutical university staff in Japan. In the Division of Integrated Life Sciences, research is conducted with the aim of deepening the understanding of basic knowledge and theory in the fields of medicine, health care and pharmacy. In the Division of Advanced Biomedical Sciences, advanced research in the field of life sciences is conducted in such areas as transplantation therapy and new drug development. In the Division of Environmental and Sociomedical Sciences, along with scientifically investigating the link between both society and medicine/pharmacy as well as

between disease and the environment, leading research related to life theory is conducted. The mission of the Faculty of Life Sciences is to contribute to the health and well-being of mankind through research and education related to life science and medical care.

#### URL:

<http://www.medphas.kumamoto-u.ac.jp/en/faculty/index.html>



## Center for Multimedia and Information Technologies

総合情報基盤センター



This center, the Center for Multimedia and Information Technologies, was established as the central organization to integrate the university computer systems and info-communication networks organically. Our mission is to develop education and research at Kumamoto University through information technology. To achieve the mission, we conduct research on information processing, support information-related research, and provide education on information literacy. We also provide, operate, and maintain computers and network equipment in our university.

URL: <http://www.cc.kumamoto-u.ac.jp/en>

## Center for Globalization

国際化推進センター



The Center for Globalization was established to be a central part of the Kumamoto University Organization for Globalization. The reorganization of the former International Student Center, completed on January 1, 2009, enabled the creation of the Center to assist the university as a whole to move towards further internationalization. The aim of the center is to promote the internationalization of Kumamoto University, which is central to the university's primary goal of becoming a global academic hub (initiative university). The center also provides Japanese courses for international students, and offers them useful advice regarding their studies and livelihoods in Japan.

URL: <http://ewww.kumamoto-u.ac.jp/international/>

## Research Center for Higher Education

大学教育機能開発総合研究センター



The Research Center for Higher Education engages in surveys, research and curriculum development, faculty development (FD), quality assurance, Computer-Assisted Language Learning (CALL), student support and other educational issues for the improvement of teaching and learning in Kumamoto University.

The Center also contributes toward implementing the university's liberal arts curriculum in cooperation with the responsible organizations.

URL: <http://ewww.kumamoto-u.ac.jp/dept/research/>

## Center for Policy Studies

政策創造研究教育センター



In April 2007, Kumamoto University integrated the Center for Lifelong Learning and the Center for Policy Studies, and the new center, the Center for Policy Studies has since been functioning as a think tank in the university. With this integration, the interfacing function with the community that was previously fulfilled by the two aforementioned centers separately is now strengthened.

Drawing upon the results of research and education accomplished at Kumamoto University to establish a better society, the center conducts policy studies to resolve problems in the community and makes recommendations based on the outcome. The center also helps community members to develop practical skills and provides them with technical support in resolving common issues challenging us today. Examples of the broad range of areas dealt with by the center include assessments of municipal administration and regional policies, community revitalization, disaster preparedness, city planning, public transportation, health and welfare policies, environmental conservation, and industrial development.

The center cooperates with other related bodies both on and off campus to train people who are capable of supporting the community, and also actively promotes lifelong education that makes use of the educational outcomes of research in the areas of life, social, and natural sciences, which Kumamoto University has developed over the years.

URL: <http://ewww.kumamoto-u.ac.jp/dept/policy/>



## The Memorial Museum of the Fifth High School

熊本大学五高記念館



Photograph by Toru Sakamoto

The Memorial Museum of the Fifth High School is composed of two historic buildings which have been designated as Important Cultural Properties, the main building of the Fifth High School and the Chemical Laboratory. It contains exhibits of historical documents relating to higher education and activities of the Fifth High School along with other relevant artifacts. In addition to these standing exhibits, the Memorial Museum of the Fifth High School offers lectures, lessons on cultural themes, experiential learning meetings, as well as concerts.

In addition, the museum serves as a training center for the museum curator training course at Kumamoto University, and also offers reference services. The support of lifelong learning and community activities are central to the mission of the Memorial Museum of the Fifth High School.

URL: <http://ewww.kumamoto-u.ac.jp/dept/fifth/>

## Institute for e-Learning Development

eラーニング推進機構



The Institute for e-Learning Development was established in April 2007. Just as the name suggests, the Institute is responsible for all e-learning affairs in the entire University. The missions of the Institute are mainly these four:

- (1) To offer organized services for all e-learning requirements
- (2) To develop e-learning courses and high quality content for effective education
- (3) To manage affairs related to intellectual property rights and obligations
- (4) To enable integrated and organized utilization of both human and computer resources for the development and implementation of e-learning in Kumamoto University.

URL: [http://ewww.kumamoto-u.ac.jp/dept/e\\_learning/](http://ewww.kumamoto-u.ac.jp/dept/e_learning/)

## Center for Marine Environment Studies

沿岸域環境科学教育研究センター



The center conducts education and research, in areas such as basic science and applied science, that focuses mainly on the marine environment around the Ariake Sea and the Yatsushiro Sea. More specifically, the center conducts educational research and analysis of the biodiversity and ecosystems of coastal areas, the preservation and development of sustainable marine resources, and preservation, development, and disaster prevention in ecologically balanced coastal areas. Center research is dedicated to the conservation and creation of improved coastal regions.

URL: <http://engan.kumamoto-u.ac.jp/index.html>

## Magnesium Research Center

先進マグネシウム国際研究センター



Currently, there is strong demand from the transportation industry for ways to reduce the weight of structural components, in order to reduce both energy consumption and CO<sub>2</sub> emissions. As magnesium is the lightest known structural metal, magnesium alloys are increasingly being used for use in a wide range of lightweight applications. The magnesium research center at Kumamoto University ("mrc.ku"), established in December 2011, has been extensively involved in a variety of magnesium-related research areas. These include alloy design, casting metal formation, mechanical properties, corrosion, surface treatment, and recycling. This group has also developed an international magnesium research network, particularly involving countries in the East Asia region. The main missions of "mrc.ku" are to (1) provide state-of-the-art research and education, (2) develop an international research network and (3) promote international joint research.

URL: <http://www.mrc.kumamoto-u.ac.jp/>



## Institute of Resource Development and Analysis

生命資源研究・支援センター



The Institute of Resource Development and Analysis (IRDA) was established for the purpose of promoting comprehensive education and research in various scientific areas by providing diverse research resources and information.

Two major objectives of the IRDA are: 1) Production, development, preservation, and supply of experimental animals, including genetically engineered animals, and construction and analysis of databases using advanced bioinformatics, and phenotype analysis. 2) Research, education, enlightenment, data management and technical support for experiments using animals, genetic materials and radioisotopes.

URL: <http://irda.kuma-u.jp/en/index.html>

## Center for AIDS Research

エイズ学研究センター

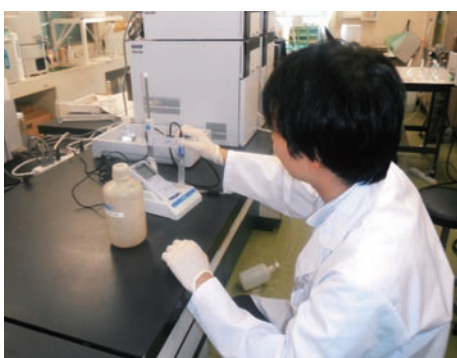


The Center for AIDS Research (CAIDS) conducts research on the pathogenesis, treatment, and prevention of AIDS. The center also promotes AIDS research by engaging in international and domestic collaborations. In 2008, our program "Global Education and Research Center Aiming at the Control of AIDS" was selected as one of the global Center of Excellence programs supported by the Ministry of Education, Culture, Sports, Science and Technology. CAIDS also promotes sciences at international level and education for the future global scientific leaders in the field of HIV/AIDS Research via this program.

URL: <http://www.caids.kumamoto-u.ac.jp/aidsnew/englishpage/default.html>

## Environmental Safety Center

環境安全センター



The Environmental Safety Center was established in 2001 to manage environment and safety issues at the University and its surroundings.

The activities of the Center are as follows;

- (1) Treatment and management of waste that contains harmful materials
- (2) Monitoring of harmful materials
- (3) Education and investigation of environment and safety
- (4) Providing information on environment and safety
- (5) Editing of the environmental report
- (6) Guidance for management of chemical substances

URL: <http://ewww.kumamoto-u.ac.jp/dept/environmental/>

## Research Center for Buried Cultural Properties

埋蔵文化財調査センター



The eight campuses of this university are built on top of some of the most famous remains from the Jōmon period down to modern times (Kurokami-machi-, Honjō-, Ōe-sites among others) in Kumamoto prefecture. Therefore, whenever it is inevitable to dig into the ground for maintenance of the facilities of the campuses (construction or repair of buildings, infrastructure), archaeological excavations are carried out in order to save the remains.

This center emerged as one of the Inter-Department Institutes for Education and Research in October 2011 from the Research Office for Buried Cultural Properties, which undertook excavations since 1994. The center's objectives are documentation, preservation and practical use of the excavated cultural properties (sites and finds). Excavation results are presented to the public in annual and other reports, and visitors are always welcome to study the original finds.

*Photo: Potteries excavated from the ruins of the campus*

## Institute of Molecular Embryology and Genetics

発生医学研究所



The Institute of Molecular Embryology and Genetics aims to contribute to society through research activities and the education of students and young scientists by promoting the integration of life and medical sciences from the point of view of developmental biology and human diseases. This institute was founded in 1992, extensively reorganized in 2000 and 2009, with the three divisions (Developmental Regulation, Stem Cell Research, and Organogenesis) consisting of 12 departments. The research interests span such important areas as: epigenetics, protein regulation, DNA damage and repair, intercellular communications, ES and iPS cells, mesenchymal stem cells, hematopoietic differentiation, pancreas and liver development, brain morphogenesis, and kidney and genital development. The 21st Century Center-of-Excellence (COE) Program (2002-2006), followed by the global COE Program (2007-2011) in the Institute, entitled Cell Fate Regulation Research and Education Unit, leads to outstanding research and educational activities. The Center for Organ Regeneration Research newly started in 2012 to realize future regenerative medicine and scientific collaborations with the University Hospital.

URL: <http://www.imeg.kumamoto-u.ac.jp/en/index.html>

## Institute of Pulsed Power Science

パルスパワー科学研究所



Pulsed power is an instantaneous form of energy which, when temporally compressed, can exert a tremendous amount of electricity and power. In order to find solutions for various problems the international community is reaching for goals such as the realization of a society which is safe and secure, which fosters environmental protection and recycling, and which advances medicine and social welfare. We conduct development of pulsed power science and technology and work to resolve issues from the viewpoint of pulse power technology. In our international research environment, we produce global leaders with interdisciplinary skills. As a world-leading research center for pulsed power science and technology and related fields, and as an organization that will be at the global forefront in the creation of multidisciplinary human resources and innovation, we aim to grow as an institute that is a credit to Kumamoto, to Japan, and to the world.

URL: <http://www.ipps.kumamoto-u.ac.jp/>

## Priority Organization for Innovation and Excellence

大学院先導機構



Priority Organization for Innovation and Excellence was established to contribute to the enhancement and development of educational research activities at Kumamoto University. It does so by enriching and improving the graduate schools, and by promoting the world's most advanced COE (Center of Excellence) Studies program, a highly evaluated program that encompasses life science, natural science, social and cultural sciences and interdisciplinary, multiple, or new disciplines base on organic cooperation between the fundamental sciences and the applied sciences. This has brought the creation of the new COE, a new research center and several new graduate courses (majors).

URL: <http://www.kumamoto-u.ac.jp/organizations/sendou>

## Kumamoto University Innovative Collaboration Organization (KICO) イノベーション推進機構

The Kumamoto University Innovative Collaboration Organization (KICO) was established in April 2008 through the consolidation of the Cooperative Research Center, the Venture Business Laboratory and the Business Incubation Center. The organization's main missions are :

- Providing prompt and efficient one-stop service to assist in creating, obtaining and utilizing the university's intellectual property,
- Constructing strong interactions between government-academic-industry alliances and spurring innovation in the Kumamoto area,
- Using the university's intellectual property to develop the university's global competitiveness.

In order to achieve these missions, KICO strategically implements a broader range of activities including :

- Management, protection, transfer, and commercialization of the university's intellectual property, as well as support in filing patent applications,
- Promotion of collaborative and commissioned research with companies and public institutions,
- Human Resource Development to produce individuals who have a thorough knowledge of global intellectual property.

Through these activities, KICO aims to develop through open innovation, build a firm foundation for evolving research results, and cultivate progressive individual talent.

## Organization for Globalization

国際化推進機構

Organization for Globalization was established in 2008, as the foremost decision-making body to handle important issues concerning the internationalization of Kumamoto University. This Organization is headed by the President of Kumamoto University. 'Strategic alliance at global level', 'Mobility and flexible structure of human resources', 'Effective dissemination of information', and 'English as the medium of communication' have been taken up as the key objectives for effective globalization. All efforts are being made to actively promote international exchange in both education and research fields.

## Organization for General Education

教養教育機構



The Organization for General Education was newly established on August 1, 2011 to administer liberal arts education at Kumamoto University and to assist the Bachelor Courses education as a part of continuing educational reform efforts. With the active involvement of the faculties in providing Bachelor programs, the new organization seeks to fulfill the contemporary requirements for "the goals and philosophy of the Bachelor Programs." This reaches beyond the limits of the former requirements for "the goals and philosophy of liberal arts education."

## Health Care Center

保健センター



The Health Care Center is located on the Kurokami North Campus. Three physicians and two nurses are available during normal school hours for consultation and treatment. The service is free to all members of the University community.

URL: <http://ewww.kumamoto-u.ac.jp/dept/health>





## University Hospital

### ■ Division of Internal Medicine

Respiratory Medicine, Gastroenterology and Hepatology, Hematology, Rheumatology and Clinical Immunology, Nephrology and Hypertension, Metabolism and Endocrinology, Cardiovascular Medicine, Neurological Medicine

### ■ Division of Surgery

Cardiovascular Surgery, Thoracic Surgery, Gastroenterological Surgery, Breast and Endocrine Surgery, Pediatric Surgery, Transplantation, Urology, Gynecology

### ■ Division of Child Health and Development

Pediatrics, Child Development, Obstetrics

### ■ Division of Sensory and Motor Organs

Orthopaedic Surgery, Dermatology, Plastic and Reconstructive Surgery, Ophthalmology, Otolaryngology-Head and Neck Surgery, Oral and Maxillofacial surgery

### ■ Division of Radiology

Diagnostic Imaging and Interventional Radiology, Radiation Oncology

### ■ Division of Anesthesia, Neurosurgery and Psychiatry

Neuropsychiatry, Neurosurgery, Anesthesia

### ■ Departments

Laboratory Medicine, Surgical Center, Central Radiology, Intensive Care Unit, Central Medical Supply, Rehabilitation, Surgical Pathology, Transfusion Medicine and Cell Therapy, Emergency and General Medicine, Infectious Diseases, Dialysis Center, Endoscopic Diagnostics and Therapeutics, Medical Information Technology, Pharmacy, Nursing, Medical Technology, Department of Clinical Nutrition, Patient Safety Unit, Administration

### ■ Centers

Comprehensive Clinical Education, Training and Development Center, Center for Clinical Research, Innovation Center for Translational Research, Medical Liaison Center, Perinatal Medical Center, Cancer Center, Medical Engineering Center, Regional Medical Support Center, Medical Quality Management Center, Transplantation Center

Kumamoto University Hospital comprises medical examination departments, a pharmaceutical department, a nursing department, and central consultation facilities, among other features. The hospital has 845 beds and over 1,300 outpatients per day.

The hospital is currently planning to construct a new outpatient building, with the aim of constructing a university hospital that will be able to handle the medical science and medical care needs of the 21st century. Through this, the hospital is promoting the establishment of a comprehensive medical care system that combines advanced medical treatment and comprehensive holistic medical treatment. As a part of this, the divisions of medical treatment shifted to an overall medical care system categorized by each internal organ and body system starting in January 2004.

Now, the hospital is focusing on medical examinations and treatment of cancer at a cancer medical cooperation base hospital in the administrative division.

### Mission

Kumamoto University Hospital is dedicated to excellence in patient care, developing improved methods of healthcare, and developing health professionals and students. Members of the staff also contribute communities for their welfare and health.

### Vision

- ◆ **Patient First:** We dedicate to excellence in patient care for respecting patient's wishes, anticipations and requests
- ◆ **Excellence:** We provide high-quality health care in a safety and reliable manner
- ◆ **Teamwork:** We develop positive role health professionals
- ◆ **Innovation:** We develop and improve the method of healthcare

### Patient Rights

- ◆ Right to medical care of good quality
- ◆ Right to information
- ◆ Right to self-determination
- ◆ Right to confidentiality

### Patient Responsibilities

- ◆ To provide accurate and complete information about your health
- ◆ To follow any of hospital rules
- ◆ Not to disturb hospital peace

URL: <http://www.kuh.kumamoto-u.ac.jp/en/index.html>



The University Library is composed of the Central Library, the Medical Library and the Pharmacy Library. It provides information resources and services to support the University's educational and research activities.

The Central library is open from 8:40 a.m. to 10:00 p.m. Monday to Friday, and 12:00 a.m. to 6:00 p.m. Saturday and Sunday.

**Library Holdings (As of March 31st, 2013)**

	Books	Periodicals
Central Library	1,061,921	15,065
Medical Library	182,879	5,151
Pharmacy Library	39,123	1,034
Total	1,283,923	21,250

**Special Collections of Books and Manuscripts**

**1. The Aso Manuscript Collection (1,047 items)**

This impressive collection of historical documents, formerly kept at Aso Shrine, contains a wealth of information relating to the Nanbokucho and Kamakura Periods. Of the 1,047 items of this collection, 34 volumes of 304 letters and 36 manuscripts have been designated as Important Cultural Properties.

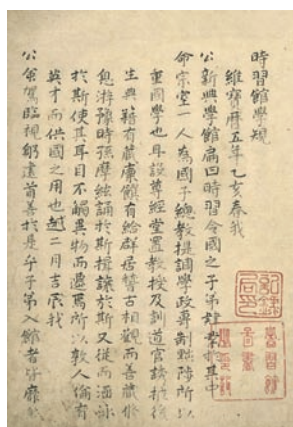
**2. The Hosokawa Manuscript Collection (43,867 items)**

This is the largest collection of primary source materials on the administration of the Hosokawa government (Hosokawa Han), ranging from the Nanbokucho Period to the early Meiji Period.

**3. The Lafcadio Hearn Collection (227 volumes)**

This is an extensive collection of various editions of the works of Lafcadio Hearn and fundamental research materials about Hearn, chiefly in English. It contains his English translations of Anatole France, Gustave Flaubert, and Theophile Gautier.

URL: <http://www.lib.kumamoto-u.ac.jp/>



The Hosokawa Manuscript Collections

## Kumamoto University Tokyo Office

東京オフィス

Established: April 2004

Scope: 1. Provides support for university-industry collaborations  
2. Offers information regarding the educational research activities of KU to businesses, the government, and other public offices and organizations  
3. Offers information regarding entrance exams to prospective students, and provides support to KU students who are seeking jobs  
4. Collaborates with alumni associations 5. Conducts seminars and organizes various gatherings

## Kumamoto University Kansai Office

関西オフィス

Established: December 2011

Scope: 1. Provides support for university-industry collaborations  
2. Offers information regarding the educational research activities of KU to businesses, the government, and other public offices and organizations  
3. Offers information regarding entrance exams to prospective students, and provides support to KU students who are seeking jobs  
4. Collaborates with alumni associations 5. Conducts seminars and organizes various gatherings

## Kumamoto University Kansai Liaison Office

関西リエゾンオフィス

Established: October 16, 2009

Scope: 1. Promotes collaboration with industry and government offices in the Kansai region, and promotes technology transfers  
2. Provides technical consultation, and conducts meetings and collaborative research gatherings  
3. Exhibits research processes and engages in public relations activities  
4. Distributes pamphlets and provides information about the entrance exams of KU, and assists students in finding jobs  
5. Collaborates with alumni associations 6. Conducts seminars and other gatherings

Address: South Facility #2203, Creation Core Higashi Osaka 1-4-1 Aramoto Kita, Higashi Osaka City, Osaka 577-0011, Japan  
E-mail: kansai@kumamoto-u.ac.jp

## Kumamoto University Shanghai Office

上海オフィス

Established: October 2005 (Became a part of the Kumamoto Shanghai Office, which was established jointly with Kumamoto Prefecture and Kumamoto City in October 2011)

Scope: 1. Promotes academic and student exchanges with partner institutions  
2. Cultivates Chinese students who are interested in studying at KU, and assists students who are preparing to come to KU to study  
3. Promotes the international collaboration of the university, industry and government  
4. Provides information about KU and its entrance exams, and assists with public relations activities  
5. Supports alumni activities

Address: 1509 15/F, 1038 WEST Nanjin Road, Shanghai 200041, China  
TEL: +86-21-6218-6901 E-mail: hehaiyang@kumamoto-shanghai.com

## Kumamoto University Liaison Office at KAIST

韓国オフィス

Established: September 2008

Scope: 1. Promotes research collaboration 2. Supports the joint symposiums of KU and KAIST  
3. Provides information about KU and its entrance exams, and assists with public relations activities

Address: KAIST Biomedical Research Center 291 Daehak-ro (373-1 Guseong-dong), Yuseong-gu, Daejeon 305-701, Korea

## Global Academic-Industry Collaboration Satellite Office in Shandong University 山東大学オフィス(中国)

Kumamoto University and Shandong University (Jinan City, Shandong Province, China) signed a memorandum on March 22, 2010 to mark the establishment of satellite offices to promote personnel exchanges and mutual friendship between the two universities in the field of academic-industry collaboration. Based on this agreement, a KU satellite office was opened in the Department of Academic Research of Shandong University, and a Shandong University satellite office was set up in the Kumamoto University Innovative Collaboration Organization (KICO).

Established: March 2010

Scope: 1. Promotes the collaboration of university, industry and government 2. Promotes academic exchange  
3. Provides information about KU 4. Functions as a center for KU activities in China

## Kumamoto University Liaison Office at ITS

インドネシアオフィス

Established: April 2010

Scope: 1. Promotes academic and student exchanges with partner institutions  
2. Cultivates Indonesian students who are interested in studying at KU, and assists students who are preparing to come to KU to study  
3. Promotes international collaboration of the university, industry and government  
4. Provides information about KU and its entrance exams, and assists with public relations activities  
5. Supports alumni activities

Address: ITS International Office Gedung Rektorat Lantai 2 Kampus ITS Keputih – Sukolilo Surabaya Jawa Timur, 60111 Indonesia  
TEL: +62-31-596-6985 E-mail: mia@its.ac.id

## Kumamoto University Dalian Office

大連オフィス

Established: March 2011

Scope: 1. Provides information regarding Japan and KU to students and the faculty of Dalian University of Technology and partner institutions in northern China  
2. Builds networks of alumni and other relevant people in northern China  
3. Strengthens the relationship with other partner institutions in northern China  
4. Promotes KU's various activities in northern China

Address: Room 106, Bldg. B, No. 80 Software Park Rd, Dalian 116024, China TEL: +86-411-8470-2983



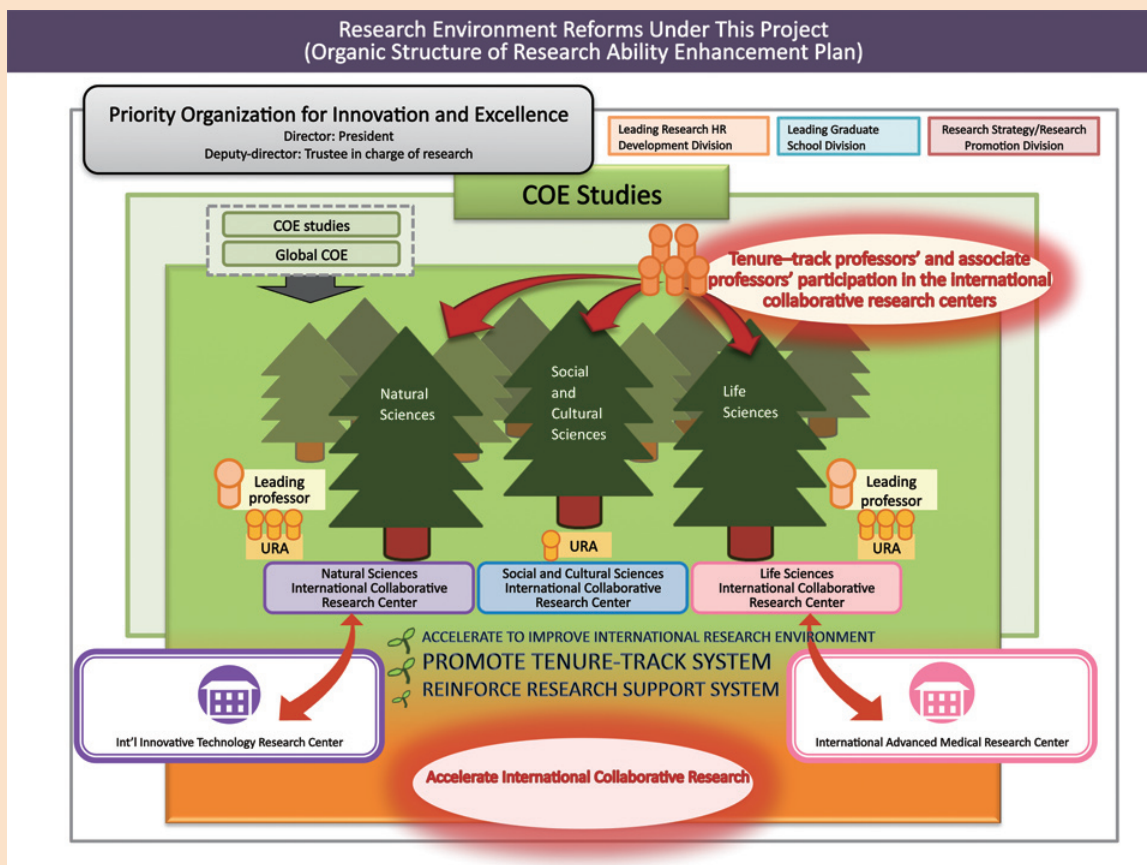
## Kumamoto University selected as Supported University under the Program for Promoting the Enhancement of Research Universities (RU-22) sponsored by MEXT

### Overview

This program, funded by the Ministry of Education, Culture, Sports, Science and Technology (MEXT), was initiated to improve the level of general research skills in Japan by supporting universities and other research institutions that promote world-leading research. More specifically, this program supports university efforts to strengthen their research, such as the securing of human resources for research management and the intensive reform of research environments. Kumamoto University was selected as one of 22 institutions to receive support from MEXT. This illustrates the high value placed on our past research activities.

In Kumamoto University, top researchers are selected from the international collaborative research centers for Natural Sciences, Social and Cultural Sciences, and Life Sciences. Then, University Research Administrators (URAs) are assigned to support the researchers. We expect to enhance our international research ability, promote some of the world's most advanced research, and reinforce distinctive fundamental studies.

As an international research institution, Kumamoto University would like to invest even more effort into accelerating the adoption of internationally used research systems and environments, both now and in the future.



# ADVANCED RESEARCH PROJECTS

## Center of Excellence

Project Leader	Program Title	Program Overview
<p><b>AKIYAMA Hidenori</b>, Graduate School of Science and Technology</p> 	<p>Toward the World's Top Group in Research and Education of Pulsed Power Engineering</p>	<p>Pulsed power is instantaneous ultra-high power. By controlling and utilizing it in a narrow space and an instantaneous time, phenomena and reactions that are not attained by conventional and ordinary methods can be achieved. Innovating this new field, the 21st Century COE program, "Promotion and application of pulsed power science," has been developed, globally comprising the elucidation and the application of transitional, non-linear, and non-equilibrium phenomena as the pulsed power. In association with research achievement on various phenomena that are produced in solids, liquids, gases, and biological organisms by the pulsed power, research target and basis have widened up to such fields as environmental preservation, resource recycling, foodstuffs, medicine, nanotechnology, extreme condition science and so forth. It implies that the pulsed power engineering is really promising for extremely broadened industrial applications and innovations.</p> <p>The global center of excellence (COE) program, funded by MEXT, on pulsed power engineering at Kumamoto University has started in 2008 and completed in March 2013. This COE research program brought about globally groundbreaking achievements. Unique facilities with the world's most advanced equipment were developed and installed. These include the only large-scale explosion experimental facility in any Japanese university, Japan's only bioelectrics research center, a pioneering pulsed power research facility equipped with multiple types of generating devices, and Kumamoto University's self-developed mega-gravity field generating apparatus. With these distinctive facilities, collaborative research with other organizations in Japan and overseas were aggressively promoted. As a result, 595 articles by 16 program promoters were published in peer reviewed journals over 5 years. One program promoter wrote 7 articles per year on average. In addition, interdisciplinary experiments by young researchers from different fields of study also yielded unique results.</p>
<p><b>KUME Shoen</b>, Institute of Molecular Embryology and Genetics</p> 	<p>For the Better Understand- ing of Mechanisms Underlying the Generation and Regeneration of Organs</p>	<p>Global COE Program, funded by the Ministry of Education, Culture, Sports, Science and Technology in fiscal year 2007 until 2011, focused on supporting the establishment of education and research centers that perform at the apex of global excellence in order to foster creative researchers who will go on to become world leaders. "Cell Fate Regulation Research and Education Unit", a program in the field of life sciences at Kumamoto University, was selected as a Global COE program. Its further activities are attracting attention as one of the 13 programs in the field of life sciences, selected among the proposals from national, public, and private universities all over Japan.</p> <p>"Cell Fate Regulation" is a fundamental process that governing organogenesis. Its concept is to understand the fate determination of stem cells to various kinds of cell types. We expect that research activities will synergistically contribute to the better understanding of organogenesis and we also hope that clues toward development of strategies to treat diseases involving cell fate regulation will be obtained. This program aimed to promote research on cell fate regulation, which is a fundamental process governing organogenesis. This program aimed at the same time, and more importantly, to encourage young scientists in a wide variety of research fields related to cell fate regulation by providing <b>Intercultural, Interactive, International, and Interdisciplinary Optimum (I-CANDO)</b> Environment. The program recruited 69 post doctoral fellows and 115 graduate students, and provided support for 98 research proposals. Today, many Japanese and foreign young scientists, who have been supervised by Global COE Program members are currently conducting research in North America and Europe. After the trainings in our COE program, young scientists have their own research grants from MEXT at the rate of 38.8 percent (14/36), which is outstanding compared to the national average of 24 percent.</p> <p>Understanding of the differentiation process of stem cells to many kinds of cells, in view of molecules, tissues, and organs, and finally as an individual organisms –After being trained with the above-mentioned programs, scientists and students can interact with and motivate each other actively for the purpose of universal understanding of life phenomena to building of a foundation for the development of new therapies - This environment will foster young scientists to become, with the CAN-DO attitude, internationally minded and internationally competitive independent scientists.</p>
<p><b>MITSUYA Hiroaki</b>, Faculty of Life Sciences</p> 	<p>Advancing Global Education and Founding a Center of Excellence for Research Aimed at the Control of AIDS</p>	<p>Today, HIV infection poses an imminent and frightening threat to public health, and has had a devastating impact worldwide since its ominous emergence in 1981. Of note, HIV prevalence is on the rise in Japan. Despite the ongoing growth of the epidemic, national funding for HIV/AIDS research is considerably limited in Japan, and the number of Japanese scientists and clinicians focusing on AIDS has remained consistently low for over 20 years. To assume our share of responsibility, there is an urgent need to promote international collaboration and to expand training opportunities for young individuals to become leaders in the area of HIV/AIDS research.</p> <p>Founded as the first and only academic institute in Japan devoted to HIV/AIDS research, Kumamoto University Center for AIDS Research is committed to fostering a dynamic program to train young researchers specializing in HIV and AIDS. Utilizing and expanding our experience and commitment in "the Initiative for Attractive Educational Programs in Graduate School: the AIDS Research Training Program", the global COE (gCOE) program funded by MEXT from FY2008 to 2012 offered a rigorous and educational "AIDS Research Expert Training Program (AREP)" for graduate students, young physicians, and junior researchers. Our main strategies in AREP are (i) globalizing the laboratories, both scientifically and linguistically, (ii) furthering existing collaborative research projects, and (iii) creating new projects with designated international liaison laboratories (ILL).</p> <p>Although the backbone of the research enterprise is individual activity, many areas of HIV/AIDS research require teams of interdisciplinary scientists working at the intersection of virology, immunology, chemistry, molecular and structural biology, pharmacology, clinical medicine, and other fields. In this program, we will aggressively pursue a number of interdisciplinary projects by nurturing domestic and international collaborations, and by attracting and training motivated and talented young individuals from across Japan and foreign countries.</p>

## ■ Natural Sciences ■

Project Leader	Program Title	Program Overview
<b>OTANI Jun</b> , Graduate School of Science and Technology 	Research and education center for application of X-ray CT to engineering materials	The X-EARTH Center (herein as X-Eco, Aqua, Resource and Technology) was established for the research and education through the X-ray CT methods applied to the various kinds of materials. The researches performed in this center include many different research fields such as Geotechnical Engineering, Coastal Engineering, Environmental Engineering, Mechanical Engineering, Material Science, Archaeology, Paleontology and so on, using Industrial and Micro-focus X-ray CT scanners. Any researchers and students all over the world are welcome to our center and share the latest researches and technologies through the X-EARTH International Community Network. <a href="http://www.civil.kumamoto-u.ac.jp/x-earth/en/index.html">http://www.civil.kumamoto-u.ac.jp/x-earth/en/index.html</a>
<b>MATSUMOTO Yasumichi</b> , Graduate School of Science and Technology 	Hierarchical Organized Nanomaterials Based on Soft Wet Process	The project aims to open new fields in nano-science and technology to develop new devices such as sensors, catalysts, phosphors, electrodes, alloys, and polymers with hierarchical nano-hybrid structures. Almost of all the nano-hybrid materials are prepared by soft wet process. The research includes fabrication of ordered surfaces at atomic and molecular level, study on functions of nano-space in structures of molecules and materials, synthesis of nano-size and nano-structured materials etc. The education is carried out through the monthly group meeting together with invited world-leading scientists.
<b>KAWAMURA Yoshihito</b> , Graduate School of Science and Technology 	Research and Development of KUMADAI Magnesium Alloys	One current global environmental strategy to reduce CO <sub>2</sub> gas emission is to achieve total weight reduction in transportation devices, especially relating to automotive, railway, and aerospace applications. Magnesium alloys have a light weight among structural metals, and are therefore very attractive materials for this weight-savings initiative. New magnesium alloys possessing excellent mechanical properties and containing novel LPSO structure phase, have been developed at Kumamoto University and are called "KUMADAI magnesium alloys." This project aims to progress the research and development on these alloys for their practical application and to form international research networks with universities, institutes, and industries, for advanced magnesium alloy science and technology.
<b>YOSHIASA Akira</b> , Graduate School of Science and Technology 	The Properties of Condensed Matter under Extreme Conditions and their Detailed Atomic Level Structural Analyses	Experimental and simulation studies are closely coordinated to investigate the structure of melts, and amorphous and crystal materials, under extreme conditions. The experiments are performed in-situ, using technologically advanced equipment such as Spring-8 synchrotron facilities. The project aims at the construction of a theory that links nanoscale structures and macroscopic properties, the visualization of electronic structures by simulation, and the textures and history of multi-element and multi-phase structures such as the Earth's interior.



## ■ Life Sciences ■

Project Leader	Program Title	Program Overview
<b>YAMAMURA Ken-ichi</b> , Institute of Resource Development and Analysis 	Application of Genetically Engineered Mice to Intractable Disease Medicine	In this project, we aim to (1) produce transgenic mouse models for human diseases, (2) establish phenotyping platform, (3) analyze the pathophysiology of disease development, (4) devise new methods of treatment using mouse models, (5) apply its new treatment for human patients. To accomplish these goals, we divided members into 5 groups, the skin disease group, lung disease group, dystrophy group, cancer group, and mouse production group.
<b>ARAKI Norie</b> , Faculty of Life Sciences 	Research and Education Center for Systems Biology based on Disease Proteomics, a New Field of Bioscience in the Post-Genomic Era	In our project, we aim to establish the most advanced research and education center for "Systems Biology based on Proteomics" as a new field of bioscience in Kumamoto University. Under the completion of a highly resourced research core-lab equipped with the most advanced instruments and bioinformatics clustered for the integrated proteomics in a new facility of our medical campus, unique research projects including developments of new strategies and tools such as software, devices, and bio-techniques, for finding novel clinical targets and molecular mechanisms of cancer, immune-, neuro-, infectious-, genetic-diseases, etc. are being promoted with not only our university level, but also the world wide level of collaborations. Unique lectures and seminars also have been attracting the attention of students and young scientists.
<b>MARUYAMA Toru</b> , School of Pharmacy, Center for Clinical Pharmaceutical Sciences 	Leading project for individualized medicine at the Center for Clinical Pharmaceutical Sciences	In April 2008, Kumamoto University established The Center for Clinical Pharmaceutical Sciences (CCPS) in its School of Pharmacy. The objectives of the CCPS are 1) continuing professional education for pharmacists, 2) providing practical training in pharmaceutical care for undergraduate and graduate students, 3) developing personalized medicine, and 4) providing evidence-based health information. This project aims to put personalized medicine into practice, especially targeting Asians. The specific projects are 1) personalized health plans based on the risk stratification as determined by the combination of a few susceptibility alleles, 2) personalized drug therapy, focusing on high risk patients, e.g. neonates, and 3) the development of new diagnostic /monitoring systems.
<b>SUGIMOTO Yukihiko</b> , Faculty of Life Sciences 	COE for Development of Innovative Drugs Made in 'Kumamoto University'	This projects aims to promote drug discovery studies for the treatment of intractable diseases such as inflammation, fibrosis, cancer and neurodegeneration. This project also aims to cultivate pharmaceutical researchers and advanced pharmaceutical specialists that can provide excellent leadership in a wide variety of fields including the creation of medicinal products, clinical, environmental and public health administration.



# ADVANCED RESEARCH PROJECTS

## ■ Cultural and Social Sciences ■

Project Leader	Program Title	Program Overview
<b>YOSHIMURA Toyoo</b> , Faculty of Letters 	World Cultural Resources Collection and Construction of Historical Cultural Resources Study	This research project was launched to screen accumulated worldwide and local resources, and particularly the eiseibunko, or Hosokawa Manuscript collection, which is preserved at Kumamoto University and is the largest collection of primary source materials on the administration of the Hosokawa government. The materials will be reviewed through systematic discussion in the various fields of Humanities, including Historical Science, Archaeology, Folklore, Linguistics, and Japanese Literature, to organize the collections as a research resource in the field of Japanese Studies.
<b>SUZUKI Katsuaki</b> , Graduate School of Instructional Systems 	Center of Excellence for the Innovation of Professional Education	This project aims at building a center of excellence in leading innovative research on professional education that encompasses both higher education and corporate training, building upon what has been accomplished in Graduate School of Instructional Systems (GSIS). GSIS was founded in 2006 by creating practical curriculum based on competencies necessary for e-Learning professionals.

## ■ Interdisciplinary, Combined Fields, New Disciplines ■

Project Leader	Program Title	Program Overview
<b>TAKAHASHI Takao</b> , Graduate School of Social and Cultural Sciences 	Construction of 21 <sup>st</sup> Century Future Generation Studies	The project aims to construct an interdisciplinary science of Future Generation Studies, which responds to the three tasks concerning responsibility to future generations; (1) Ethical Response: reorganization of ethical norms through the research on integration of the applied ethics and through understanding the organic unity of life, environment and technology, (2) Consensus Formation: formulating a new style of consensus formation, especially Alternative Dispute Resolution (ADR), aiming to restoration of solidarity and autonomy as a citizen, (3) Construction of New Communal Space: reconstruction of sustainable system of healthcare, welfare, economy, local communities, and local democracy. This interdisciplinary science of Future Generation Studies can be called New Moral Science.
<b>SHIMADA Jun</b> , Graduate School of Science and Technology 	Frontier studies on sustainable utilization of water resources based on regional hydrological cycle	The global warming and the accelerated growth of the world population are proving a great menace for the sustainable water supply. The fresh water resource that we can use is very limited, so we have to understand the regional hydrological cycle and the capacity of water storage. To resolve the water environmental problems, the sustainable use of water resource, reduction of environmental loads, and preservation of the fresh water resource against the contamination are required. We will establish the new methodology target to Kumamoto area, and then new methodology will be adapted to the Southeast Asian and African countries
<b>TAKIKAWA Kiyoshi</b> , Center for Marine Environmental Study 	Foundation of a research and education center for advanced environmental science and technology for ecosystem protection, disaster prevention, and "life ware" formation around enclosed coastal areas.	The distribution and diversity of creatures and saltwater plants are important subject to the environments in the coast region. Main purposes of our studies are the explication of the interaction among environments in the atmosphere, seawater and sediment. These achievements lead to the new themes in our educations and researches that are related with the maintenance, disaster prevention and practical use to keep the harmonious environments in the coastal region.
<b>ARAKI Eiichi</b> , Faculty of Life Sciences 	Core Research Center for Stress Signal and Lifestyle Diseases	Cellular adaptive responses for endogenous reactive oxygen species (ROS) and environmental toxic substances are the emerging aspects of oxidative stress in biology and medicine. While ROS are typically regarded as toxic mediators for oxidative stress, it now becomes apparent that ROS mediate signal transduction during both basal metabolisms and pathological events such as inflammation and various metabolic diseases. This Advanced Research Project will therefore focus on the pathogenesis of oxidative stress-related diseases, including diabetes mellitus, atherosclerosis, hypertension and metabolic syndrome. Another impact of this Project is to clarify the molecular mechanisms of cellular stress responses and ROS signaling, which will then greatly help us to develop a novel therapeutic strategy for many diseases.
<b>KUBOTA Hiroshi</b> , Shock Wave and Condensed Matter Research Center 	NaPFA (Nano-Pico-Femt-Atto-)scales production under newly developed manufacturing science	Beyond the high-mix low-volume manufacturing era, advanced semiconductor production requires various kinds of products in large lots instead of the low-volume ones because the production line should keep running to realize the reduction of the cost by quantity output effect. General semiconductor products have an average of 550 individual steps of production process, which take approximately 12 to 16 weeks. Then, the set of the individual products in the line should be converted quickly and reset dynamically. What we have to develop are, 1) fine NaPFA scales (Nano-, Pico-, Femt-, Atto-scales) syntheses and metrologies, 2) knowledge based IT techniques, e.g. virtual metrology, feed forward control, statistical fault detection. We present the pilot line moving under atomic scale to incorporate many ideas from all of our professors, students and engineers in the device unit.

# ACADEMIC EXCHANGE AGREEMENTS

Kumamoto University has formed cooperative relationships with foreign academic institutions by concluding academic exchange agreements. As of September 1, 2013 we have 151 partner institutions in 30 countries and regions.

chart 1

## CHANGES IN NUMBERS OF PARTNER INSTITUTIONS

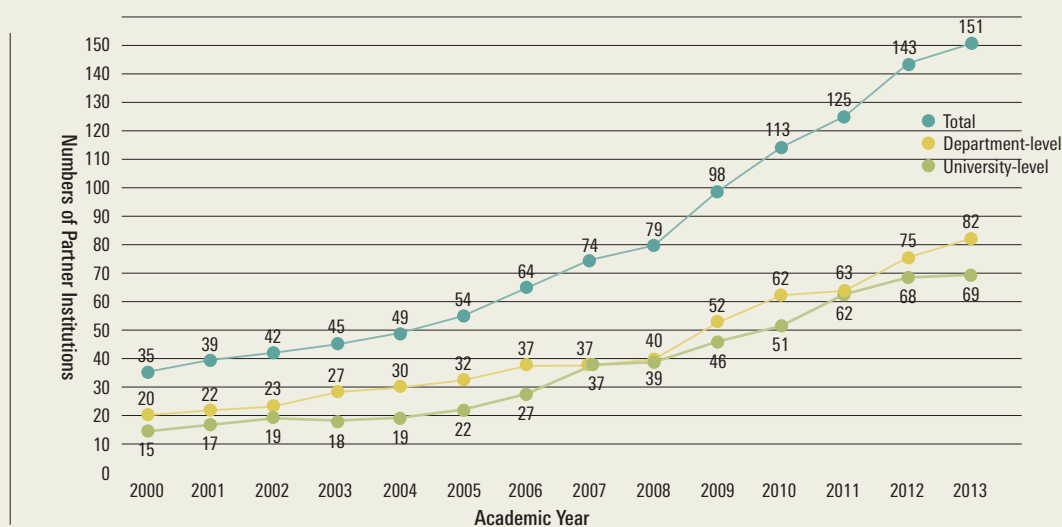


chart 2

## LISTS OF UNIVERSITY-LEVEL EXCHANGE AGREEMENTS

(As of September 1, 2013)

Country	University / Institute	Since	Country	University / Institute	Since
Australia	The University of Newcastle	1986	Israel	Ben-Gurion University of the Negev	1999
Bangladesh	University of Dhaka	2000	Korea	Pai Chai University	1999
Canada	University of Alberta	2001	Korea	Dong-A University	2005
China	Guangxi Normal University	2005	Korea	Korea Advanced Institute of Science and Technology	2006
China	Tongji University	2005	Korea	Chosun University	2009
China	Dalian University of Technology	2006	Korea	Pukyong National University	2011
China	Nanchang University	2006	Korea	University of Seoul	2011
China	Shanghai Normal University	2008	Korea	Ajou University	2011
China	Harbin Institute of Technology	2009	Korea	Chungbuk National University	2012
China	Jilin University	2009	Korea	Pusan National University	2012
China	Nankai University	2009	Korea	Chonbuk National University	2012
China	Shandong University	2009	Laos	National University of Laos	2011
China	Sichuan University	2009	Malaysia	University Sains Malaysia	2012
China	Northeastern University	2010	Nepal	Pokhara University	2010
China	Beijing University of Technology	2011	New Zealand	Massey University	1996
China	Shenzhen University	2011	Philippines	University of the Philippines, Diliman	2002
China	University of Macau	2011	Poland	University of Warsaw	2009
China	East China University of Political Science and Law	2011	Taiwan	Southern Taiwan University	2008
Egypt	Suez Canal University	2006	Thailand	Kasetsart University	1994
Egypt	Fayoum University	2008	Thailand	Khon Kaen University	2004
France	École Nationale Supérieure d'Électronique, Informatique, Télécommunications, Mathématique et Mécanique de Bordeaux (IPB/ENSEIRB-MATMECA)	2006	Turkey	Ege University	2000
France	Pole University of Bordeaux (Bordeaux 1 University, Segalen - Bordeaux 2 University, Michel de Montaigne - Bordeaux 3 University, Montesquieu - Bordeaux 4 University, The National Graduate School of Chemistry and Physics of Bordeaux, Bordeaux Institute of Political Studies)	2007	U.K.	Durham University	1993
Germany	Saarland University	2001	U.K.	University of Birmingham	1993
Indonesia	The Consortium of Institut Teknologi Sepuluh Nopember, Indonesia (Institut Teknologi Sepuluh Nopember, Universitas Sam Ratulangi, Universitas Mataram, Universitas Cenderawasih, Universitas Nusa Cendana)	2008	U.K.	University of Leeds	2006
Indonesia	Institut Teknologi Bandung	2011	U.S.A.	The University of Montana	1987
Indonesia	Gadjah Mada University	2013	U.S.A.	Montana State University	1987
			U.S.A.	Virginia Commonwealth University	1989
			U.S.A.	University of North Carolina at Charlotte	1990
			U.S.A.	Texas Tech University	1994
			U.S.A.	The University of Texas at San Antonio	2010
			Vietnam	VNU University of Science	2007
			Vietnam	Ho Chi Minh City University of Technology	2010
			Vietnam	Hue University	2010
			Vietnam	National University of Civil Engineering	2010

## ACADEMIC EXCHANGE AGREEMENTS

## chart 3

## LISTS OF DEPARTMENT-LEVEL EXCHANGE AGREEMENTS

(As of September 1, 2013)

Country	University / Institute	Since	Counterpart
Australia	Queensland University of Technology	2010	Graduate School of Science and Technology
Australia	Griffith University, Griffith School of Engineering	2012	Faculty of Engineering, Graduate School of Science and Technology
Brazil	University of Campinas	2009	Faculty of Engineering, Graduate School of Science and Technology
Canada	University of Waterloo, Faculty of Engineering	2013	Graduate School of Science and Technology
China	Chinese Academy of Medical Sciences	1983	School of Medicine
China	Chinese Academy of Sciences, Institute of Mechanics	1993	Faculty of Engineering
China	Guilin University of Technology	1999	Faculty of Engineering, Graduate School of Science and Technology
China	Harbin Medical University	1999	School of Medicine, Faculty of Medical and Pharmaceutical Science, Graduate School of Medical Sciences, Graduate School of Pharmaceutical Sciences
China	Chinese Academy of Sciences, Shanghai Laboratory Animal Center	2004	Institute of Resource Development and Analysis
China	Guangdong Medical Laboratory Animal Center	2004	Institute of Resource Development and Analysis
China	Yanbian University, College of Science	2006	Faculty of Science, Graduate School of Science and Technology
China	Guangxi Medical University	2007	Faculty of Medical and Pharmaceutical Sciences
China	Guangxi University, College of Civil Engineering & Architecture, School of Chemistry & Chemical Engineering	2007	Faculty of Engineering, Graduate School of Science and Technology
China	Jilin Institute of Chemical Technology	2008	Faculty of Engineering, Graduate School of Science and Technology
China	Peking University, College of Engineering	2008	Faculty of Engineering, Graduate School of Science and Technology
China	Renmin University of China, School of Law	2008	Faculty of Law
China	Wenzhou Medical College	2008	Faculty of Medical and Pharmaceutical Sciences
China	Fudan University, School of International Relations and Public Affairs	2009	Graduate school of Social and Cultural Sciences
China	Yunnan University of Finance and Economics, School of Urban Management and Resource Environment	2009	Faculty of Engineering, Graduate School of Science and Technology
China	Zhejiang University, College of Science	2009	Faculty of Engineering, Graduate School of Science and Technology
China	Anhui University, Center for Hui Studies	2010	Faculty of Letters
China	Chongqing University, Colleges of Engineering	2010	Faculty of Engineering, Graduate School of Science and Technology
China	Hangzhou Normal University, School of Foreign Languages	2010	Faculty of Letters, Graduate school of Social and Cultural Sciences
China	Peking University, Health Science Center	2010	School of Medicine, Faculty of Life Sciences, Graduate School of Medical Sciences
China	Shenyang Jianzhu University, Civil Engineering College, Civil & Environmental Engineering College, Graduate School	2010	Faculty of Engineering, Graduate School of Science and Technology
China	Xiamen University, Medical College, Institute for Biomedical Research	2010	School of Medicine, Faculty of Life Sciences, Graduate School of Medical Sciences
China	Zhejiang University, School of Medicine	2010	School of Medicine, Faculty of Life Sciences, Graduate School of Medical Sciences
China	Hezhou University	2011	Faculty of Engineering, Graduate School of Science and Technology
China	Harbin University of Commerce, School of Energy and Civil Engineering	2012	Faculty of Engineering, Graduate School of Science and Technology
China	National Institutes for Food and Drug Control	2012	Institute of Resource Development and Analysis
China	Sun Yat-san University	2013	Graduate School of Science and Technology
China	Shanghai Jiao Tong University	2013	Center for Policy Studies
Czech	Technical University of Ostrava and Institute of Geonics of the Academy of Sciences of the Czech Republic	2009	Faculty of Engineering, Graduate School of Science and Technology
Czech	Institute of Chemical Technology, Prague	2010	Graduate School of Science and Technology
France	Polytech/Clermont-Ferrand	2010	Graduate School of Science and Technology
France	University Joseph Fourier - Grenoble I	2011	Faculty of Engineering, Graduate School of Science and Technology
France	École nationale supérieure des mines de Saint-Étienne	2012	Faculty of Science, Faculty of Engineering, Graduate School of Science and Technology
Germany	University of Bonn, Faculty of Arts	1997	Faculty of Letters
India	Annamalai University, Faculty of Engineering & Technology	2006	Faculty of Engineering, Graduate School of Science and Technology
India	Manipal University	2009	Faculty of Engineering, Graduate School of Science and Technology
India	National Institute of Technology Karnataka	2009	Faculty of Engineering, Graduate School of Science and Technology
India	Birla Institute of Technology and Science (BITS)	2010	Faculty of Engineering, Graduate School of Science and Technology
India	Thapar University	2010	Faculty of Engineering, Graduate School of Science and Technology
Indonesia	University of Brawijaya	2011	Faculty of Science, Faculty of Engineering, Graduate School of Science and Technology



Country	University / Institute	Since	Counterpart
Korea	Hannam University, College of Law	2001	Faculty of Law
Korea	Kangnam University, College I	2002	Faculty of Education
Korea	Korea Institute of Industrial Technology, R&D Division for Bulk Amorphous and Nano Materials	2003	Faculty of Engineering, Graduate School of Science and Technology
Korea	Hoseo University, Nano Materials & Products Regional Innovation Center	2004	Shock Wave and Condensed Matter Research Center
Korea	Hoseo University, College of Engineering	2007	Faculty of Engineering, Graduate School of Science and Technology
Korea	Korea University, College of Health Science Korea University Graduate School, Department of Health Science	2007	School of Medicine, Faculty of Life Sciences, Graduate School of Health Sciences
Korea	Ewha Womans University, Center for Intelligent Nano-Bio Materials (CINBM)	2008	Graduate School of Science and Technology
Korea	Korea Research Institute of Bioscience and Biotechnology	2008	Institute of Resource Development and Analysis
Korea	Yeungnam University Law School	2010	School of Law
Korea	Inha University, College of Engineering, Graduate School of Engineering, Regional Innovation Center for Environmental Technology of Thermal Plasma	2011	Faculty of Engineering, Graduate School of Science and Technology
Korea	Korean Maritime University, College of Engineering	2011	Faculty of Engineering, Graduate School of Science and Technology
Korea	Kosin University, Graduate School of Kosin University and College of Natural Science	2011	Faculty of Science, Faculty of Engineering, Graduate School of Science and Technology
Korea	National Institute of Food and Drug Safety Evaluation (NIFDS) Korea Food and Drug Administration (KFDA)	2012	Institute of Resource Development and Analysis
Korea	Yonsei University	2013	Faculty of Engineering, Graduate School of Science and Technology
Laos	University of Health Science, Lao PDR, Faculty of Pharmacy	2010	School of Medicine, School of Pharmacy, Faculty of Life Sciences, Graduate School of Medical Sciences, Graduate School of Pharmaceutical Sciences
Malaysia	University Sains Malaysia, School of Mechanical & Aerospace Engineering	2009	Faculty of Engineering, Graduate School of Science and Technology
Philippines	De La Salle University - Manila, College of Engineering	2011	Faculty of Engineering, Graduate School of Science and Technology
Poland	AGH University of Science and Technology, Faculty of Materials Science and Ceramics	2010	Graduate School of Science and Technology
Russia	Novosibirsk State Technical University, Aircraft and Mechanical Engineering Faculties	2008	Shock Wave and Condensed Matter Research Center
Slovenia	University of Maribor, Faculty of Mechanical Engineering	2013	Faculty of Engineering, Graduate School of Science and Technology
Spain	The Spanish National Research Council	2013	Institute of Resource Development and Analysis
Sudan	Medicinal and Aromatic Plants Research Institute	2012	Faculty of Life Sciences, Graduate School of Pharmaceutical Sciences, School of Pharmacy
Taiwan	Nan Jeon Institute of Technology	2005	Faculty of Education
Taiwan	National Kaohsiung First University of Science and Technology, College of Engineering	2009	Faculty of Engineering, Graduate School of Science and Technology
Taiwan	National Laboratory Animal Center	2010	Institute of Resource Development and Analysis
Taiwan	Chang Jung Christian University, College of Humanities and Social Sciences	2011	Faculty of Letters, Graduate School of Social and Cultural Sciences
Tanzania	Muhimbili University of Health and Allied Sciences, School of Medicine	2003	Faculty of Medical and Pharmaceutical Sciences, Graduate School of Medical Sciences
Thailand	Suranaree University of Technology, Institute of Science	2009	Faculty of Medical and Pharmaceutical Sciences, Graduate School of Medical Sciences
Thailand	Mahidol University, Faculty of Medicine Ramathibodi Hospital	2010	Faculty of Life Sciences, Graduate School of Medical Sciences
Thailand	Chulalongkorn University, Faculty of Engineering	2011	Faculty of Engineering, Graduate School of Science and Technology
Turkey	Bogazici University, Institute of Environmental Sciences	2008	Graduate School of Science and Technology
U.K.	Mary Lyon Centre, MRC Harwell	2011	Institute of Resource Development and Analysis
U.S.A.	Georgia Institute of Technology, College of Engineering	1996	Faculty of Engineering, Graduate School of Science and Technology
U.S.A.	The Jackson Laboratory	2004	Institute of Resource Development and Analysis
U.S.A.	University of California, San Francisco, School of Nursing	2011	Faculty of Life Sciences, Graduate School of Health Sciences
U.S.A.	University of San Francisco School of Nursing and Health Professions	2012	Faculty of Life Sciences, Graduate School of Health Sciences
U.S.A.	College of Pharmacy and Allied Health Professions, St. John's University	2012	Faculty of Life Sciences, Graduate School of Pharmaceutical Sciences, School of Pharmacy
U.S.A.	University of California, Davis	2013	Institute of Resource Development and Analysis
Vietnam	Ministry of Natural Resources and Environment, Vietnam Institute of Geosciences and Mineral Resources	2007	Faculty of Science, Graduate School of Science and Technology
Vietnam	Danang University of Technology	2008	Faculty of Engineering, Graduate School of Science and Technology
Vietnam	Ho Chi Minh City University of Architecture	2008	Faculty of Engineering, Graduate School of Science and Technology
Vietnam	Vietnam National Museum of Nature, Vietnam Academy of Science and Technology	2012	Graduate School of Science and Technology

The department names above are written as they existed when the agreements were concluded / renewed.

## TOPICS OF INTERNATIONAL ACTIVITIES

## 10th Japan-Brazil International Workshop on Energy, Environment and Sustainable Development Held

On November 14, 2012, the 10th Japan-Brazil International Workshop on Energy, Environment, and Sustainable Development was cohosted by Kumamoto University, Gifu University and the University of Campinas (Brazil) at the 100th Anniversary Memorial Hall, Kumamoto University.

The University of Campinas and Gifu University hosts this workshop annually, which originated from the first workshop held at University Campinas (Brazil) in 2003, due to increasing concern about the environment in Japan and Brazil.

This 10th Japan-Brazil International Workshop on Energy, Environment and Sustainable Development was held at Kumamoto University, since the University of Campinas has a department-level exchange agreement with the Faculty of Engineering and Graduate School of Science and Technology of Kumamoto University.

This workshop aimed to strengthen the partnership between Japanese and Brazilian researchers and to contribute to the development of both countries by making presentations and holding discussions mainly on topics such as energy, biomass, environment, and agriculture. Six Brazilian researchers and five Japanese researchers delivered lectures in English, and had an animated discussion.

About 140 on-and off-campus participants such as graduates and researchers including international students joined the workshop.

The workshop was also delivered to Gifu University via teleconference, where 26 graduates of Gifu University joined as part of their classes.

One of the speakers from University of Campinas, Professor Luis Cortez commented, "I could exchange information and have a fruitful discussion with Japanese researchers including the researchers from Kumamoto University through this workshop. Brazil places great importance on Japan for various aspects, including energy, and environment fields, as well as economy and culture. It is also good to try various things in youth, so I hope many Japanese young people visit Brazil where the economy is growing greatly."

One of the listeners from Graduate School of Science and Technology of Kumamoto University, a foreign visiting researcher Jorge Morel (Paraguay) also commented, "I participated in this workshop because there were the presentations by Brazilian researchers from South America, my home area. I was very interested in the topic of green energy which is related to my research field. In particular, the information about bio-ethanol was very useful for me. There were so many helpful presentations and discussions to study various energy issues, since the current main source of electricity in Paraguay is a hydroelectric generation. Japan also should have more discussions in order to introduce more renewable energy sources like these. I expect that the specific benefit will be brought into both countries by strengthening these valuable partnerships, since Japan has excellent science technologies, and Brazil has rich natural resources."



## SUN / SixERS concludes partnership agreement with ASEAN University Network

On April 22, 2013, the Six Universities Network/International Education & Research System, Japan (SUN / SixERS), whose membership includes Kumamoto University, concluded a partnership agreement with the ASEAN University Network (AUN), which comprises top universities in ASEAN member states. As a representative of Kumamoto University, Professor Hirotaka Ihara, who became the vice president in charge of international exchange in April 2013, attended the signing ceremony held at Mahidol University in Thailand.

After the ceremony, a vice presidents' meeting was held with the participation of representatives from SUN / SixERS member universities and 13 AUN member universities, such as Universitas Indonesia and Universiti Teknologi Malaysia. One of the goals of the partnership agreement is to promote development of students into leaders in a globalizing world. Toward this goal, attendees at the meeting discussed and made specific proposals on the establishment of a framework for inter-university exchanges and development of student exchange programs.

SUN / SixERS, a consortium of six Japanese national universities-Chiba University, Niigata University, Kanazawa University, Okayama University, Nagasaki University and Kumamoto University-was established in April 2013. This was the first case where Japanese national universities scattered over such a large area formed a consortium.

SUN / SixERS strives to create a center for world-class innovative research, develop students into leaders in a globalizing world, contribute to local communities and promote international activities, through various forms of collaboration based on unique strengths of the six member universities. Under the partnership agreement with AUN, the consortium will strive to make its member universities more global and enhance collaboration with AUN, especially through inter-university exchange programs and a credit transfer system in the life science field.



## Global Academic Excellence Seminar held at the Institut Teknologi Sepuluh Nopember (ITS), Indonesia

On September 28, 2012, Kumamoto University held the 4th Global Academic Excellence Seminar at the ITS. We have hosted seminars at our overseas partner universities since 2011, in which we showcase research carried out at Kumamoto University and hold an exchange student recruitment seminar. Through these seminars, we aim to effectively recruit international exchange students wishing study in Japan and to promote more active research exchange. This is the fourth such seminar.

In the seminar, we introduced our distinctive research activities at Kumamoto University. Approximately 150 students from ITS attended the seminar and listened with keen interest. After the seminar, we fielded a number of interesting questions from the audience, which highlighted their keen interest both in the seminar and in Kumamoto University.

The seminar has given us hope for an increase in Indonesian exchange students coming to Kumamoto University in the future.



## A Department-level Exchange Agreement between Shanghai Jiao Tong University's School of International and Public Affairs (China) and Kumamoto University's Center for Policy Studies

On July 1, 2013, in Shanghai, China, the signing ceremony of a department-level exchange agreement between Kumamoto University's Center for Policy Studies and Shanghai Jiao Tong University's School of International and Public Affairs was held.

Since Shanghai Jiao Tong University's opening in 1896, many politicians and academia, including the former President of the People's Republic of China, Jiang Zemin, have graduated. At the university's School of International and Public Affairs, studies are held on Comparing Governments, the Civil Service, Public Economics and Public Policy. There has been academic exchange with Center for Policy Studies previously.

From Kumamoto University, Trustee and Vice President Shinji Harada, in-charge of research and social cooperation, and Professor Shinya Ueno of Policy Studies, and others involved visited Shanghai Jiao Tong University and had meetings with the Vice President Xu Fei. After the signing ceremony, a conference on Public Affairs was held, where Professor Ueno and Associate Professor Yoko Kawamura gave an overview and summary of the activities of Center for Policy Studies.

In this visit, the participants exchanged their views on how the exchange arrangement should be conducted including the visit of students and professors who were involved in the HIGO (Health life science: Interdisciplinary and Global Oriented) Program adopted by Ministry of Education, Culture, Sports, Science and Technology's Program for Leading Graduate Schools in 2012 to Shanghai Jiao Tong University. It is hoped that the agreement between the universities will lead to even deeper amicable relations in the future.



## The Party for Kumamoto University International Students 2012 Held

On December 12, 2012, the party for international students was held at the 100th Anniversary Memorial Hall, Kumamoto University. Kumamoto University holds this event annually, with the aim of offering encouragement to international students who work hard on their studies and research whilst living in a foreign environment. It is also a great opportunity for them to socialize and strengthen ties with each other as well as with their supervisors, tutors and distinguished guests from outside the school.

At the party, attendees were greeted by Professor Harada, Director of the Center for Globalization, as well as by the President of the South Korean Exchange Student Association. This was followed by a toast from Professor Chen, the Director of the Division of International Exchange Support, Center for Globalization. After the formalities, attendees socialized and enjoyed the event.

In addition, attendees were treated to performances of traditional music, songs and dances by 7 groups of international students. Each performance was judged by our distinguished guests and the group with the highest scoring performance was awarded the Best International Student Performance Award by President Taniguchi. Meanwhile, a raffle organized by the Volunteer Group of International Exchange Support for Kumamoto University (Vogies) was also held. A total of 350 people came along and enjoyed the party.



## Faculty Development Training Program for the Globalization of Education 2013

From September 3 to September 5 2013, Kumamoto University held an FD Training Program for the Globalization of Education for the purpose of improving English communication and teaching skills at our university.

In the 2010 and 2011 academic years, faculty members from Kumamoto University were sent to the University of Alberta in Canada (one of our partner institutions) and California State University, Fullerton in the U.S.A. for a 2-week training course. Since the 2012 academic year, we have invited lecturers from the University of Alberta to conduct training at Kumamoto University. Nine faculty members in 2012 and 25 members in 2013 participated in the training course.

The participants sat through lectures on teaching methods and took part in practical exercises to improve their English conversational ability, during which they acquired a lot of valuable skills. On the final day of training, each participant carried out a five-minute mock class in front of the lecturer and other participants to show the results of their training. One of the participants said, "It was a very worthwhile training program. I feel like the methods we learned are useful not only for teaching in English but also for teaching in Japanese."

Looking to the future, the university hopes that the participants use the skills they have acquired on this course to promote activities aimed at improving Kumamoto University's International Education Program. Furthermore, we all expect the participants to further internationalize education in their respective faculties and graduate schools.





# RESEARCHERS AND SCHOLARS EXCHANGES (April 2012- March 2013)

Region	Country	University Staff Sent Abroad							Visiting Foreign Researchers						
		Ministry of Education (MEXT)	Japan Society for the Promotion of Science (JSPS)	Japan International Cooperation Agency (JICA)	Other Domestic Funds	Foreign Governments / Institutes	Private-Funded	Sub-total	Ministry of Education (MEXT)	Japan Society for the Promotion of Science (JSPS)	Japan International Cooperation Agency (JICA)	Other Domestic Funds	Foreign Governments / Institutes	Private-Funded	Sub-total
Asia	Bangladesh						0	2	4		6				12
	China	38	18	17	60	8	3	144	1	7	3	19	11	4	45
	India	9			11	1	1	22	2	2		71			75
	Indonesia	5	1	24	10			40				14	2	11	27
	Korea	48	15		76	10	4	153	7	6		14		4	31
	Laos		1		2		2	5							0
	Malaysia	6			4	1		11					4		4
	Mongol	2		1	1	1		5				1			1
	Myanmar							0				1			1
	Nepal						1	1	1	1		2		1	5
	Pakistan							0				1			1
	Philippines		1		2			3	1			3			4
	Singapore	5			11	1		17							0
	Sri Lanka							0	1						1
	Taiwan	21	3		19	3		46	1			21	4		26
	Thailand	8	1		12	1	2	24		2		10			12
	Uzbekistan							0				1			1
	Vietnam	10	2	8	19	1	3	43				4			4
Sub-total	152	42	50	227	27	16	514	16	22	3	168	21	20	250	
Middle East	Iran						0				1			1	
	Iraq						0				1		1	2	
	Israel				2		2							0	
	Jordan	2					2							0	
	Oman	1			1		2							0	
	Turkey				6	1	2	9						0	
	UAE	1			1		2	2						0	
Sub-total	4	0	0	10	1	2	17	0	0	0	2	0	1	3	
Africa	Cameroon				1		1							0	
	Egypt					1	1				3	1	2	6	
	Ethiopia	1					1							0	
	Liberia						1							0	
	Libya						0				1			1	
	Morocco				2		2							0	
	South Africa			1	2		3	1						1	
	Sudan						0				1			1	
	Tanzania				2		2							0	
	Tunisia				1		1							0	
Sub-total	1	0	1	8	1	1	12	1	0	0	5	1	2	9	
Oceania	Australia	13	1		22	1	2	39	1			6		7	
	Fiji					1	1	2						0	
	New Zealand				2		2							0	
	Papua New Guinea						1	1						0	
Sub-total	13	1	0	24	2	4	44	1	0	0	6	0	0	7	
North America	Bahamas	1					1							0	
	Canada	21	4		14		2	41		1		5		6	
	U.S.A.	111	36		177	3	19	346	10			19		29	
Sub-total	133	40	0	191	3	21	388	10	1	0	24	0	0	35	
South-Middle America	Argentina						0				1			1	
	Brazil				1		1				2			2	
	Mexico	2			2		4				1			1	
	Paraguay						0						1	1	
	Peru				2		2				1			1	
	Venezuela						0	1						1	
Sub-total	2	0	0	5	0	0	7	1	0	0	5	0	1	7	
Europe	Austria	2			10	1	13							0	
	Belarus	1					1							0	
	Belgium	2	1		1		4				1			1	
	Bulgaria	1					1							0	
	Croatia				1		1							0	
	Czech	3			6		9				2		1	3	
	Denmark		2		8		10							0	
	Finland	3			4		9							0	
	France	24	2	1	27	4	2	60	1	1		6	3	11	
	Germany	29	3		25	4	8	69	3			13		16	
	Greece	4			2		6							0	
	Hungary	1			1		2							0	
	Ireland	2					2							0	
	Italy	11		1	17	1	2	32	2			6		8	
	Kyrgyz	1					1	1				1		1	
	Netherlands	10			5	1	16	1	1					2	
	Norway	1			1		2							2	
	Poland	3	2		6		1	12				1		1	
	Portugal	5			7		3	15						0	
	Romania	1					1							0	
	Russia	3			1	1	5		1		2			3	
	Serbia						1	1						0	
	Slovenia	1					1	2			2			2	
	Spain	10	2		6		18							0	
	Sweden	2			5	1	1	9				1		1	
	Switzerland	2	4		5		11	1				1		2	
U.K.	16	2		26	2	1	47	3			6	1		10	
Sub-total	138	18	2	164	24	20	366	11	3	0	42	1	6	63	
Total	443	101	53	629	58	64	1348	40	26	3	252	23	30	374	

# INTERNATIONAL STUDENTS

(As of May 1, 2013)

Region	Country	Faculties					Graduate Schools					Japanese Language Trainees	Total
		Undergraduates	Research Students	Auditors	Special Auditors	Sub-total	Graduates	Research Students	Special Auditors	Special Research Students	Sub-total		
Asia	Bangladesh					0	26			1	27		27
	Cambodia					0	1				1		1
	China	30	5		22	57	104	17		8	129		186
	India					0	1				1	1	2
	Indonesia				1	1	43			1	44		45
	Korea	10			19	29	9	1			10		39
	Laos				2	2	1				1		3
	Malaysia	5				5	2				2		7
	Mongolia					0	1				1		1
	Myanmar					0		1			1		1
	Nepal					0	1				1		1
	Philippines					0	3			1	4		4
	Taiwan				11	11	5			3	8		19
	Thailand	1			2	3	3				3		6
Vietnam	3				3	3	1		1	5		8	
Sub-total		49	5	0	57	111	203	20	0	15	238	1	350
Middle East	Afghanistan					0	1			1			1
	Iran					0	3			3			3
	Oman					0	1			1			1
	Saudi Arabia					0	2			2			2
	Turkey				1	1	5				5		6
Sub-total		0	0	0	1	1	12	0	0	0	12	0	13
North America	U.S.A.				2	2	1			1			3
	Sub-total	0	0	0	2	2	1	0	0	0	1	0	3
South-Middle America	Guatemala					0	1			1	1		2
	Jamaica					0	1			1			1
	Sub-total	0	0	0	0	0	2	0	0	0	2	1	3
Oceania	Papua New Guinea					0	1			1			1
	Solomon Islands					0	1			1			1
	Tonga					0	2			2			2
	Sub-total	0	0	0	0	0	4	0	0	0	4	0	4
Africa	Benin					0	1			1			1
	Egypt					0	9			9	1		10
	Ethiopia					0	1			1			1
	Nigeria					0	2			2			2
	Rwanda					0	1			1			1
	Sierra Leone					0				1	1		1
	Tanzania					0	3			3			3
	Uganda	1				1					0		1
Sub-total	1	0	0	0	1	17	0	0	1	18	1	20	
Europe	Armenia	1				1				0			1
	Czech				1	1			1	1			2
	France				1	1			2	2			3
	Germany				2	2				0			2
	Kyrgyzstan					0	1			1			1
	Latvia					0		1			1		1
	Poland					0	1			1			1
	U.K.				3	3		1			1		4
Sub-total	1	0	0	7	8	2	2	0	3	7	0	15	
Total(From 42 countries)		51	5	0	67	123	241	22	0	19	282	3	408

## JAPANESE STUDENTS STUDY ABROAD

The table indicates the number of exchange students who went abroad for more than three months and up to one year, to study at foreign universities that have concluded student exchange agreements with our university.

In addition, there are some Japanese students who studied abroad at their own expenses other than the above-mentioned students.

Country	Partner University	Number of Students
Australia	The University of Newcastle	2
China	Shanghai Normal University	1
France	Michel de Montaigne - Bordeaux 3 University	1
France	École Nationale Supérieure d'Électronique, Informatique, Télécommunications, Mathématique et Mécanique de Bordeaux (IPB / ENSEIRB-MATMECA)	1
Germany	University of Bonn, Faculty of Arts	1
Indonesia	Institut Teknologi Bandung	1
Korea	Dong-A University	1
Taiwan	Southern Taiwan University of Science and Technology	1
U.K.	University of Leeds	5
U.K.	University of Birmingham	1
U.S.A.	Montana State University	1
U.S.A.	The University of Montana	1
Total (April 2012 – March 2013)		17

## INTERNATIONAL HOUSE

Kumamoto University International House Residence A was constructed in 1985 to provide accommodation for international students and foreign researchers. To respond to the increase in the number of foreign students and researchers, Residence B was built in 1995, followed by Residences C, D and E in November 2009. As of May 2013, international students and researchers from about 27 countries are residing in all 232 rooms. The I-House office in Residence A is available to respond to questions from residents and to provide consultation and assistance.

(Address)

7-763 Kurokami, Chuo-ku, Kumamoto City, Kumamoto

(Location)

About 1.5 km east of the Kurokami Campus



Residence	Room Type				Total
	Family	Couple	Single	Shared (quad)	
A	3	3	49		55
B	4	3	50		57
C				36	36
D				36	36
E			48		48
<b>Total number of rooms</b>	<b>7</b>	<b>6</b>	<b>147</b>	<b>72</b>	<b>232</b>

Common Facilities	
Lounge	2
Conference room	1
Japanese-style room	1
Public Lobby	1
Multipurpose room	1
Laundry room	10

## JAPANESE LANGUAGE CLASSES

The Center for Globalization offers the following classes related to the Japanese language and Japanese studies for international students and researchers at Kumamoto University.

- Japanese Language and Japanese Studies Classes (General education Classes)
- Japanese classes for the “Kumamoto University Short-Term Exchange Program” and “Intensive Japanese course for Japanese Government Scholarship Students”, “teacher-training students”, and “undergraduate students in the Japan - Korea Joint Exchange Program in Science and Engineering”

Undergraduate students, students in the Short-Term Exchange Program and students in the Japanese Studies Program may enroll in most of these classes for academic credits.

Various levels of classes are offered so that students can choose classes according to their Japanese proficiency and their interests. Japanese Studies Classes are also offered to provide students with a broad knowledge and understanding of Japanese culture, society and technology.





## INTERNATIONAL PROGRAMS

### Kumamoto University Short-Term Exchange Program

Kumamoto University Short-Term Exchange Program is designed for students who are enrolled full-time at a university abroad and have foreign citizenship. The program offers undergraduate foreign students, who are interested in the Japanese language, Japanese and Asian society and culture, advanced science and technology, and interactions with foreign students, the chance to study for up to a year in Japan while still retaining their full-time status at their home universities. The university also hopes that the program will promote exchange between university students from foreign countries and Japanese university students.

#### • Course I (Short-Term Exchange Program I)

As a general rule, this course is intended for third year undergraduate students from universities that have a student exchange agreement with Kumamoto University. Students in this course mainly take Short-Term Exchange Program classes taught in English. Also, they can take Japanese language and Japanese Studies classes. Students in this course can take specialized subjects for undergraduate students of each faculty and general education classes which are not included in program completion requirements as well.



(note: basically specialized subjects and general education classes are taught in Japanese)

#### • Course II (Short-Term Exchange Program II)

This course is intended for students from universities that have a student exchange agreement with Kumamoto University. Students in this course mainly take classes in specialized subjects for undergraduate students of each faculty, as well as classes in the Japanese language and Japanese Studies. Also, they can take general education classes and Short-Term Exchange Program classes taught in English.

### Kumamoto University Japanese Studies Program

Kumamoto University Japanese Studies program is a one-year program intended for undergraduate international students who are majoring in fields related to Japanese language and culture. The aim of the program is to improve Japanese proficiency, to impart the knowledge and skills required to conduct Japanese studies, and to help students acquire a practical knowledge of the Japanese language and culture for use in society.



### Kumamoto University Summer Program 2013

Kumamoto University conducted the Kumamoto University Summer Program 2013 between July 29 and August 10. This program started in 2007 and is open to students from exchange partner universities. The program aims to provide international students with the chance to experience the Japanese language and culture.

As part of the program, students received various lectures in basic Japanese in the fields of Japanese History, Japanese Literature, Natural Sciences, and variety of Japanese cultural experiences. This year, 31 students from China, Korea, and Taiwan participated in the program, and offered mostly favorable reviews of their experience.



# ADMINISTRATIVE OFFICERS

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		HARADA Shinji, M.D., D.M.Sc.
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Creative Engineering and Design Education Center	Director	IKI Kazuhisa, D.Eng.
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<b>Graduate School of Social and Cultural Sciences</b>	Dean	WATANABE Isao, Ph.D.
<b>Graduate School of Science and Technology</b>	Dean	TAKASHIMA Kazuki, D.Eng.
<b>Faculty of Life Sciences</b>	Dean	TAKEYA Motohiro, M.D., Ph.D.
<b>Graduate School of Medical Sciences</b>	Dean	TAKEYA Motohiro, M.D., Ph.D.
<b>Graduate School of Pharmaceutical Sciences</b>	Dean	OTSUKA Masami, D.Pharm.Sc.
<b>Graduate School of Health Sciences</b>	Dean	TOMIGUCHI Seiji, M.D., Ph.D.
<b>School of Law</b>	Dean	HASHIMOTO Makoto, LL.M.
Clinical Legal Education and Research Center	Director	HASHIMOTO Makoto, LL.M.
<b>University Hospital</b>	Director	TANIHARA Hidenobu, M.D., Ph.D.
<b>University Library</b>	Director	OKUMA Kaoru, D.Lit.
<b>Center for Multimedia and Information Technologies</b>	Director	NAKANO Hiroshi, Ph.D.
<b>Center for Globalization</b>	Director	IHARA Hirotaka, Ph.D.
<b>Research Center for Higher Education</b>	Director	YAMAO Toshitaka, Dr.Eng.
<b>Center for Policy Studies</b>	Director	HARADA Shinji, M.D., D.M.Sc.
<b>Memorial Museum of the Fifth High School</b>	Director	ITO Juko, D.Eng.
<b>Center for Marine Environment Studies</b>	Director	HENMI Yasuhisa, D.Sc.
<b>Magnesium Research Center</b>	Director	KAWAMURA Yoshihito, Ph.D.
<b>Institute of Pulsed Power Science</b>	Director	AKIYAMA Hidenori, D.Eng.
<b>Institute of Resource Development and Analysis</b>	Director	OIKE Yuichi, M.D., Ph.D.
<b>Center for AIDS Research</b>	Director	TAKIGUCHI Masafumi, M.D., D.M.Sc.
<b>Institute of Molecular Embryology and Genetics</b>	Director	NAKAO Mitsuyoshi, M.D., D.M.Sc.
<b>Priority Organization for Innovation and Excellence</b>	Director	TANIGUCHI Isao, D.Eng.
<b>Innovative Collaboration Organization</b>	Director	HARADA Shinji, M.D., D.M.Sc.
<b>Organization for General Education</b>	Director	YAMANAKA Itaru, LL.M.
<b>Health Care Center</b>	Director	KISHIKAWA Hideki, M.D., Ph.D.
<b>Environmental Safety Center</b>	Director	OGAWA Yoshihiro, D.Eng.
<b>Research Center for Buried Cultural Properties</b>	Director	KINOSHITA Naoko, D. Lit.
<b>Institute for e-Learning Development</b>	Director	YAMANAKA Itaru, LL.M.
<b>Administration Bureau</b>		
Strategic Management Planning Office	General Manager	HAGIHARA Hitoshi
Marketing Promotion Office	General Manager	IMADA Koujiro
Research / Education Promotion Office	General Manager	YAMASAKI Masahiko
Student Affairs Office	General Manager	TSUDA Noriyuki
University Hospital Administration Office	General Manager	MATSUDA Atsurou
Administrative Office	General Manager (General Affairs)	YAMASHITA Noboru
	General Manager (Finance)	HARUYAMA Hideo
	General Manager (Facilities)	KURIKI Hiroshi

# FACULTY AND STAFF SIZE

(As of May, 2013)

Classification	Professors	Associate Professors	Lecturers (Full-time)	Assistant Professors	Research Assistant	Teachers (Attached School)	Sub-total	Administrative and Technical Staff	Total
Faculty of Letters	30	32	1				63		63
Faculty of Education	51	40	11			85	187	4	191
Faculty of Law	15	16	2		1		34		34
Faculty of Science							0	3	3
School of Pharmacy	2	4		1	1		8	5	13
Faculty of Engineering		1					1	43	44
Graduate School of Social and Cultural Sciences	9	5		1			15		15
Graduate School of Science and Technology	96	83	5	34			218		218
Faculty of Life Sciences	82	44	19	112			257	9	266
School of Law	10	7					17		17
Health Care Center	1	1		1			3	2	5
Institute of Molecular Embryology and Genetics	9	2	1	9			21	8	29
Institute of Pulsed Power Science	6	5		2			13	1	14
Innovative Collaboration Organization	1	2					3		3
Center for Multimedia and Information Technologies	3	2		2			7	3	10
Center for Globalization	1	1	3				5		5
Priority Organization for Innovation and Excellence		5		2			7		7
Research Center for Higher Education	2	4					6		6
Center for Policy Studies	2	3					5		5
The Memorial Museum of the Fifth High School		1					1		1
Institute for e-Learning Development	1	1					2	1	3
Center for Marine Environment Studies	3	2					5	1	6
Magnesium Research Center	3	2					5		5
Institute of Resource Development and Analysis	3	5		4			12	7	19
Center for AIDS Research	3	3		2			8		8
Environmental Safety Center		1					1		1
Research Center for Buried Cultural Properties		1		1			2		2
University Hospital	3	7	36	60			106	1,022	1,128
Administration Bureau								435	435
<b>Total</b>	<b>336</b>	<b>280</b>	<b>78</b>	<b>231</b>	<b>2</b>	<b>85</b>	<b>1,012</b>	<b>1,544</b>	<b>2,556</b>



# STUDENT ENROLLMENT

(As 2013 School Year)

## ■ Undergraduate Students ■

Faculty and School	Number	
Letters	770	545
Education	1,295	729
Law	937	415
Science	830	242
Medicine	1,330	657
Pharmacy	497	235
Engineering	2,416	353
<b>Total</b>	<b>8,075</b>	<b>3,176</b>

## ■ Diploma Course ■

Faculty and School	Number	
Diploma Course in Special Education	21	13

## ■ Special Course ■

Faculty and School	Number	
Special Course in School Health	46	46

\*Colored figures indicate the number of females included in the figures.

## ■ Graduate Students ■

Faculty and School	Master		Doctor		Juris Doctor	
Education	93	43	—	—	—	—
Medical Sciences	61	28	330	94	—	—
Health Sciences	48	23	27	16	—	—
Pharmaceutical Sciences	65	22	52	11	—	—
Social and Cultural Sciences	186	92	87	45	—	—
Science and Technology	862	125	229	46	—	—
School of Law	—	—	—	—	39	10
<b>Total</b>	<b>1,315</b>	<b>333</b>	<b>725</b>	<b>212</b>	<b>39</b>	<b>10</b>

## ■ Attached Schools ■

Classification	Number	
Elementary School	694	347
Junior High School	474	242
Special Support School	60	25
Kindergarten	123	56
<b>Total</b>	<b>1,351</b>	<b>670</b>

# STUDENT FINANCIAL AID

(As of March 1, 2013)

## ■ Japanese Students ■

Classification	Number of Students	Japanese Government Scholarship	Other Scholarships	Total		
				Number	Rate	
Undergraduate Students	8,106	5,098	95	5,193	64.1%	
Graduate Students	Master	1,272	735	11	746	58.6%
	Doctor	704	120	1	121	17.2%
	Juris Doctor	62	48	0	48	77.4%
<b>Total</b>	<b>10,144</b>	<b>6,001</b>	<b>107</b>	<b>6,108</b>	<b>60.2%</b>	

## ■ International Students ■

Classification	Number of Students	Japanese Government Scholarship	Other Scholarships	Total	
				Number	Rate
Undergraduate Students	123	14	17	31	25.2%
Graduate Students	282	65	88	153	54.3%
Japanese Language Trainees	3	3	0	3	100.0%
<b>Total</b>	<b>408</b>	<b>82</b>	<b>105</b>	<b>187</b>	<b>45.8%</b>

## STUDENT ADMISSION

(The 2013 School Year)

### ■ Undergraduate Students ■

Faculty and School	Applicants	Newly Enrolled Students	Rate of Enrollment
Letters	620	177	28.5%
Education	889	310	34.9%
Law	611	215	35.2%
Science	820	199	24.3%
Medicine	868	116	13.4%
Health Sciences	585	149	25.5%
Pharmacy	659	95	14.4%
Engineering	1,400	536	38.3%
<b>Total</b>	<b>6,452</b>	<b>1,797</b>	<b>27.9%</b>

### ■ Graduate Students ■

Faculty and School		Applicants	Newly Enrolled Students	Rate of Enrollment
Education	Master	62	39	62.9%
Social and Cultural Sciences	Master	120	75	62.5%
	Doctor	22	18	81.8%
Science and Technology	Master	540	414	76.7%
	Doctor	36	34	94.4%
Medical Sciences	Master	38	35	92.1%
	Doctor	80	72	90.0%
Health Sciences	Master	24	21	87.5%
	Doctor	8	5	62.5%
Pharmaceutical Sciences	Master	30	28	93.3%
	Doctor	19	18	94.7%
Law	Juris Doctor	30	9	30.0%
<b>Total</b>		<b>1,009</b>	<b>768</b>	<b>76.1%</b>

### ■ Diploma Course ■

	Applicants	Newly Enrolled Students	Rate of Enrollment
Diploma Course in Special Education	24	20	83.3%

### ■ Special Course ■

	Applicants	Newly Enrolled Students	Rate of Enrollment
Special Course in School Health	74	45	60.8%

## STUDENT COSTS

(As of May 1, 2013 / Unit: yen)

	Entrance exam fee	Admission fee	Tuition fees
Undergraduate Students	17,000	282,000	535,800/ year
Graduate Students	30,000	282,000	535,800/ year
Graduate Students (School of Law)	30,000	282,000	804,000/ year
Research Students	9,800	84,600	29,700/ month
Auditors*	9,800	28,200	14,800/ credit

\* Includes non-degree course students

# DEGREES AWARDED

(as of March 31, 2013)

## ■ Master's Degree ■

Classification	New System	
	2012.4-2013.3	Total
Master of Arts	26	934
Master of Education	38	1,026
Master of Law	11	440
Master of Public Policy	6	79
Master of Medical Sciences	21	215
Master of Nursing	13	38
Master of Health Sciences	10	40
Master of Pharmaceutical Sciences	29	1,649
Master of Clinical Pharmacy	0	76
Master of Science	85	1,988
Master of Engineering	294	7,937
Master of Philosophy	16	59
Master of Science in Instructional Systems	8	72
<b>Total</b>	<b>557</b>	<b>14,553</b>

## ■ Doctoral Degree ■

Classification	Old System	New System			
		Course Completion		Thesis Submission	
		2012.4-2013.3	Total	2012.4-2013.3	Total
Doctor of Literature	—	8	53	0	13
Doctor of Public Policy	—	3	22	0	3
Doctor of Laws	—	1	6	—	—
Doctor of Science	—	7	174	0	28
Doctor of Engineering	—	34	562	2	110
Doctor of Philosophy	—	20	268	0	18
Doctor of Medical Sciences	1,663	43	1,891	6	960
Doctor of Pharmaceutical Sciences	—	14	247	8	148
Doctor of Clinical Pharmacy	—	0	7	—	—
Doctor of Life Sciences	—	4	17	0	2
Juris Doctor	—	21	149	—	—
<b>Total</b>	<b>1,663</b>	<b>155</b>	<b>3,396</b>	<b>16</b>	<b>1,282</b>

# AFTER GRADUATION

(The 2013 School Year)

## ■ Undergraduate Students ■

Faculty and School	Number of Graduates	Number of Continuing Higher Education		Number of Employed		Others	
			Rate		Rate		Rate
Letters	196	16	8.2%	146	74.5%	34	17.3%
Education	301	29	9.6%	208	69.1%	64	21.3%
Law	199	13	6.5%	137	68.8%	49	24.6%
Science	181	102	56.4%	54	29.8%	25	13.8%
Medicine	249	17	6.8%	127	51.0%	105	42.2%
Pharmacy	85	33	38.8%	48	56.5%	4	4.7%
Engineering	565	315	55.8%	197	34.9%	53	9.4%
<b>Total</b>	<b>1,776</b>	<b>525</b>	<b>29.6%</b>	<b>917</b>	<b>51.6%</b>	<b>334</b>	<b>18.8%</b>

## ■ Graduate Students ■

Faculty and School		Number of Graduates	Number of Continuing Higher Education		Number of Employed		Others	
				Rate		Rate		Rate
Education	Master	38	1	2.6%	31	81.6%	6	15.8%
Social and Cultural Sciences	Master	67	6	9.0%	40	59.7%	21	31.3%
	Doctor	16	—	—	16	100.0%	0	0.0%
Science and Technology	Master	379	17	4.5%	331	87.3%	31	8.2%
	Doctor	58	0	0.0%	37	63.8%	21	36.2%
Medical Sciences	Master	21	8	38.1%	8	38.1%	5	23.8%
	Doctor	55	0	0.0%	37	67.3%	18	32.7%
Health Sciences	Master	23	1	4.3%	21	91.3%	1	4.3%
Pharmaceutical Sciences	Master	29	8	27.6%	19	65.5%	2	6.9%
	Doctor	15	0	0.0%	12	80.0%	3	20.0%
Law	Juris Doctor	21	—	—	—	—	21	100.0%
<b>Total</b>		<b>722</b>	<b>41</b>	<b>5.7%</b>	<b>552</b>	<b>76.5%</b>	<b>129</b>	<b>17.9%</b>

## BUDGET BREAKDOWN

### ■ Statements of Income (FY2013) ■

Unit: million yen

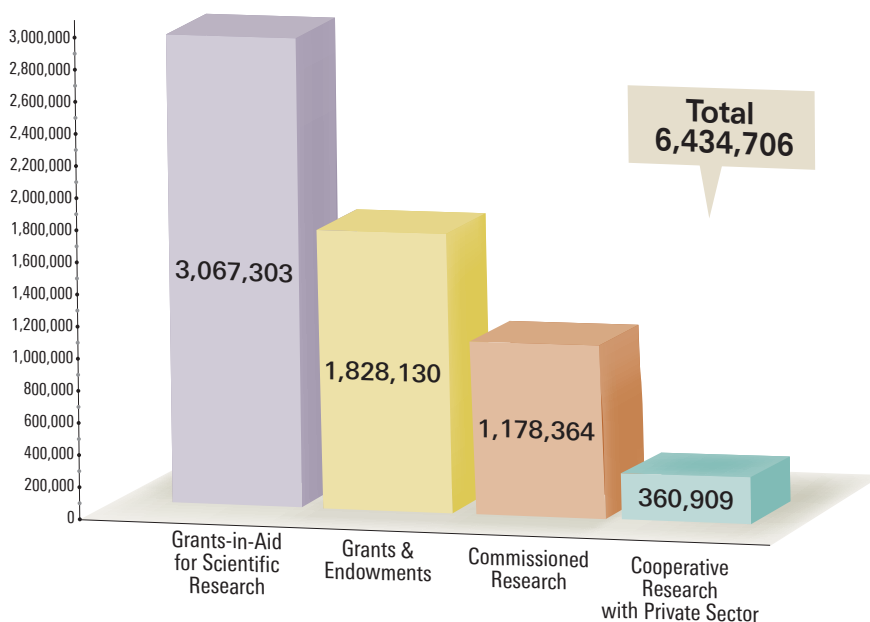
Grants for Management	15,225
Tuition and University Hospital	28,123
Commissioned Research	3,490
Subsidy for Facility	695
Loan for Facility	1,976
<b>Total</b>	<b>49,509</b>

### ■ Statements of Expenditure (FY2013) ■

Unit: million yen

Personnel Cost	19,007
Cost of Supplies	21,224
Debt Redemption	3,117
Commissioned Research	3,490
Expenditure for Facility	2,671
<b>Total</b>	<b>49,509</b>

### ■ Funds from Other Sources (FY2012 / Unit: thousand yen) ■



### ■ Grants-in-Aid for Scientific Research (FY2012) ■

Categories	Proposals Selected	*Research Expense
Grant-in-Aid for Scientific Research on Innovative Areas	41	486,330
Scientific Research on Priority Areas	2	6,300
Scientific Research (S)	3	97,110
Scientific Research (A)	18	214,500
Scientific Research (B)	64	333,817
Scientific Research (C)	270	421,466
Challenging Exploratory Research	70	101,207
Grant-in-Aid for Young Scientists (A)	8	54,990
Grant-in-Aid for Young Scientists (B)	130	219,494
Grant-in-Aid for Research Activity Start-up	16	23,530
Grant-in-Aid for Publication of Scientific Research Results	2	3,200
Grant-in-Aid for JSPS Fellows	35	28,470
<b>Total</b>	<b>659</b>	<b>1,990,414</b>

\* Includes overhead costs/ unit: thousand yen



## Kurokami North Campus

- 1 Faculty of Education (Main Building)
- 2 Faculty of Education (Music Building)
- 3 Faculty of Education (Practical Factory)
- 4 Faculty of Education (West Building)
- 5 Faculty of Education (East Building)
- 6 Faculty of Letters, Faculty of Law (Main Building)
- 7 Faculty of Letters, Faculty of Law (Lecture Building)
- 8 Faculty of Letters, Faculty of Law (North Building)
- 9 Faculty of Letters, Faculty of Law (South Building)
- 10 Student Study Building of School of Law
- 11 Research Building of Graduate School of Social and Cultural Sciences
- 12 Ai Work
- 13 Accommodation Facility for Guests (Chimeido)
- 14 Kusunoki Hall
- 15 The Memorial Museum of the Fifth High School ※
- 16 The Chemical Laboratory of the Fifth High School ※
- 17 General Education Building
- 18 Academic Commons Kurokami-6 and Stack Room
- 19 Academic Commons Kurokami-6
- 20 Kurokami North Facility and Administration Building
- 21 Athletic Field (Bufugen)
- 22 Club Room
- 23 Club Room
- 24 Gymnasium
- 25 Swimming Pool
- 26 Club Room
- 27 Student Hall
- 28 Cafeteria
- 29 The Front Gate (The Red Gate) ※

## Kurokami South Campus

- 37 Main Building of Administration Office ■
- 38 Academic Commons Kurokami-4
- 39 Center for Multimedia and Information Technologies
- 40 Gate Guard
- 41 Academic Commons Kurokami-7
- 42 Faculty of Science (Building No.1, No.2)
- 43 Faculty of Science, Graduate School of Science and Technology
- 44 Faculty of Science (Building No.3)
- 45 Faculty of Science (Building No.4)
- 46 Graduate School of Science and Technology Research Building
- 47 Graduate School of Science and Technology Laboratory Building
- 48 Low Temperature and He Gas Recovery Station
- 49 Faculty of Engineering Research Building I
- 50 Academic Commons Kurokami-2
- 51 Acoustic Laboratory
- 52 Nanostructure Analysis Room
- 53 Faculty of Engineering (Building No.1)
- 54 Faculty of Engineering (Building No.2)
- 55 Academic Commons Kurokami-3
- 56 Museum of the Engineering Faculty ※

- 30 Academic Commons Kurokami-5
- 31 Health Care Center
- 32 University Library
- 33 University Library (South Building), The Open University of Japan
- 34 Gate Guard
- 35 Cafeteria, Shop
- 36 Environmental Safety Center

## Kumamoto-u Attached Special Support School

- 80 Faculty of Education (East Department)
- 81 Special Support School (A Building)
- 82 Special Support School (B Building)
- 83 Special Support School (C Building)
- 84 Gymnasium
- 85 Suzukakeno (Training Facility for the Handicapped)
- 86 Swimming Pool
- 87 Athletic Field

# KUROKAMI



- 57 Faculty of Engineering Research Building III
- 58 Faculty of Engineering Multidiscipline Laboratory Building
- 59 100th Anniversary Memorial Hall
- 60 Academic Commons Kurokami-1
- 61 Faculty of Engineering Research Building II
- 62 Creative Engineering and Design Education Laboratory
- 63 Creative Engineering and Design Education Laboratory 2
- 64 Central Factory A
- 65 Central Factory B

- 65 Faculty of Engineering (Building No.9)
- 67 Research Laboratory
- 68 MRC Casting Laboratory
- 69 MRC Forming and Machining Laboratory
- 70 Incubation Laboratory
- 71 Venture Business Laboratory, Shock Wave and Condensed Matter Research Building
- 72 Shock Wave Laboratory Building
- 73 Radioisotope Laboratory
- 74 Research Center for Buried Cultural Properties
- 75 Engineering Research Equipment Center
- 76 Disaster Prevention Laboratory Building
- 77 Hydraulic Laboratory
- 78 FORICO (Cafeteria/Shop and Bakery)
- 79 Cafeteria/Hair Salon



Kurokami Campus (311, 478m<sup>2</sup>)





# HONJO-KUHONJI

- Honjo Campus**
- 1 West Tower
  - 2 East Tower
  - 3 Central Examination Building
  - 4 Outpatient Examination and Clinical Research Building
  - 5 Administration Building
  - 6 Yamasaki Hall
  - 7 Former Emergency Building
  - 8 Facility Management Building
  - 9 Clinical Research Building
  - 10 Medical Education & Library Building
  - 11 General Medical Research Building
  - 12 Basic Research Building
  - 13 The Center for Medical Education and Research
  - 14 Dormitory for Nurses
  - 15 Multistory Parking Garage 1
  - 16 Multistory Parking Garage 2
  - 17 Institute of Resource Development and Analysis (Center for Animal Resources & Development)
  - 18 Center for AIDS Research, Institute of Resource Development and Analysis
  - 19 Lecture Building
  - 20 Institute of Molecular Embryology and Genetics
  - 21 Institute of Resource Development and Analysis (Gene Technology Center / Radioisotope Center)
  - 22 Academic Common Honjo-1
  - 23 Club Room
  - 24 Club Room
  - 25 Club Room
  - 26 Higo Iku Monument Hall



- 27 Student Union "Kaiju"
- 28 Gymnasium
- 29 School of Health Sciences Bldg. A, B, C
- 30 Academic Commons Honjo-2
- 31 School of Health Sciences Bldg. E
- 32 Club Room
- 33 Kobato Nursery



# OE

- Oe Campus**
- 1 Main Building A, B, C
  - 2 Main Building D
  - 3 Main Building E (Library, Research Institute for Drug Discovery)
  - 4 Lecture Building

- 5 Center for Clinical Pharmaceutical Sciences
- 6 Animal House
- 7 Joint Research Building
- 8 Radioisotope Center
- 9 General Research Building
- 10 Instrumental Analysis Center
- 11 Medicinal Plant Garden Administration House
- 12 Compost Depot
- 13 Banjikan Hall (Restaurant, Seminar Room, Liaison Office)
- 14 Gymnasium
- 15 The Kumayaku Museum and Miyamoto Memorial Hall
- 16 School of Pharmacy Resource Center
- 17 Staff Residence
- 18 Athletic Field
- 19 Center for Medicinal Resources and Ecology (Medicinal Plant Garden)



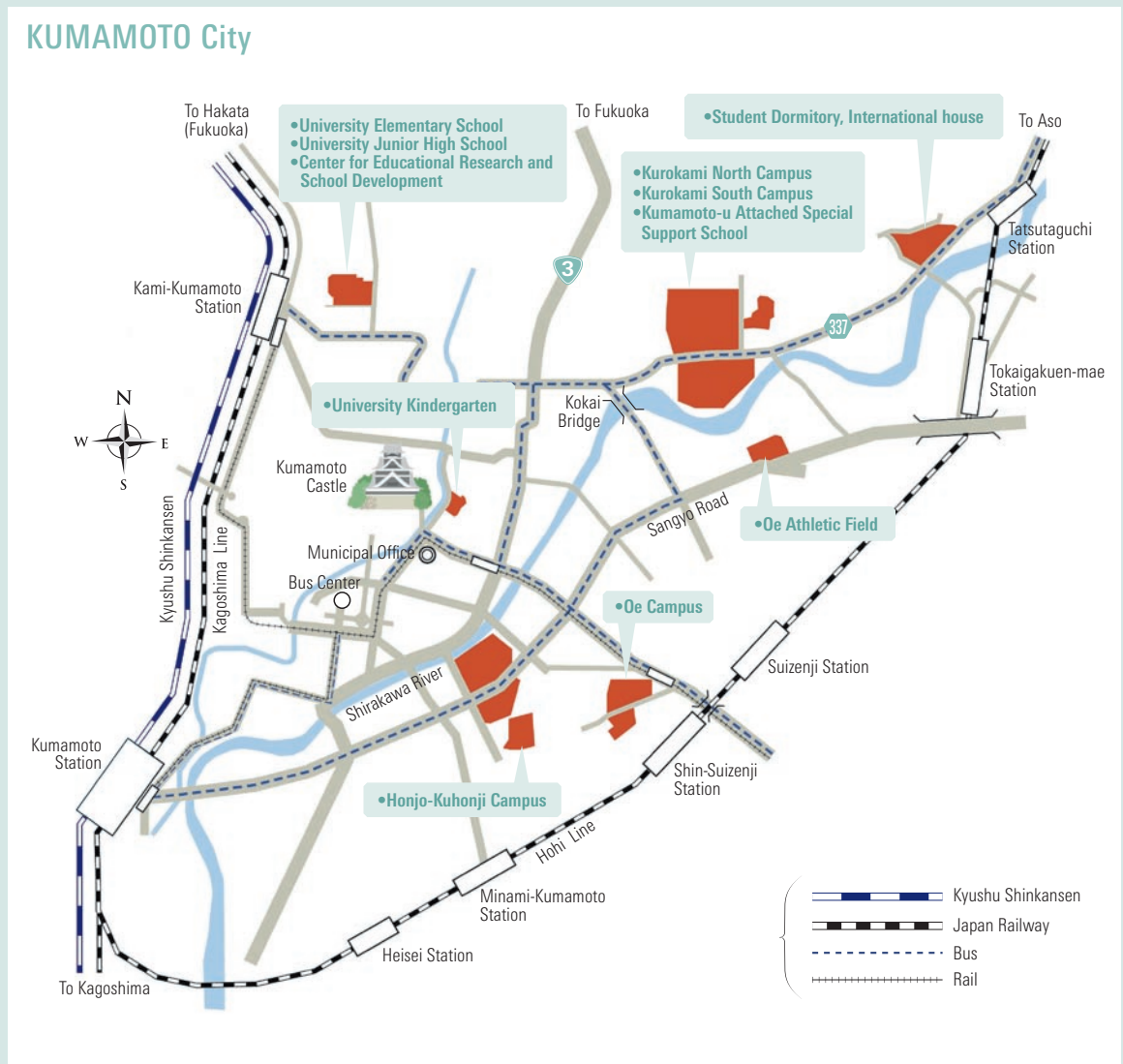
Honjo and Kuhonji Campus (133, 312m<sup>2</sup>)



# LOCATION



## KUMAMOTO City







## The Kumamoto Area

Kumamoto University is located in the city of Kumamoto in Kyushu, the southern-most main island of Japan. Kumamoto City is the third biggest city in Kyushu. It has a population of approximately 739,000, which is equivalent to about 41% of the total population of the prefecture. By air it takes 90 minutes from Tokyo and 60 minutes from Osaka; by Kyushu Shinkansen it takes 40 minutes from Fukuoka City.

The weather is generally mild, though there is a rainy season from early June to mid-July, followed by a sub-tropically hot summer season. Autumn and spring offer the most comfortable weather. Warm clothing is necessary in January and February. It seldom snows even in midwinter, and never more than a few centimeters.

Known for its abundance of trees and greenery, Kumamoto is one of Japan's oldest cities. While offering the latest in modern facilities, Kumamoto has managed to retain a purity and simplicity of old Japanese customs, flavor, and spirit which make it an interesting place to visit and a delightful place to live.

Local attractions include Kumamoto Castle, one of the oldest and grandest medieval castles in Japan; Kumamoto downtown area, located 10-15 minutes away from Kumamoto University by bicycle and known for a lot of office buildings and shopping streets; the Amakusa Islands, a chain of 120 islands known for their exciting Christian

history and plenty of rich nature; and Aso National Park, crowned by the active volcano Mt. Aso, with the largest caldera volcano in the world. Because of its proximity to Mt. Aso, the Kumamoto area also has an abundance of natural hot springs. Kumamoto is also well-known in Japan for its delicious drinking water. Because the rainfall that soaks into the ground in the mountains of the Aso region takes many years to come out, one can always be able to drink delicious water.







## **Kumamoto University**

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