



**Nagoya University**

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Nagoya University Profile 2009-2010

# Nagoya University

Profile 2009-2010



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**Dr. Michinari HAMAGUCHI**

President  
Nagoya University

## Greeting from the President

As the President of Nagoya University, I offer you my most sincere greetings. I feel the magnitude of responsibility of this office, which I assumed on April 1, 2009, a year that marks a major milestone for Nagoya University: the 70th anniversary of its founding.

Nagoya University takes pride in its free and vibrant academic culture and cites in its Academic Charter one of its principal objectives as being the “cultivation of courageous intellectuals” capable of opening up a new era. To nurture young researchers as well as those in mid-career in a wide range of fields, while maintaining the University's traditional excellence in research – attested to by its three Nobel laureates in 2008 – and ensuring balanced research activities in the future, the University must develop and support not only the most advanced fields of science and technology but also fields concerned with the transmission of humanity's cultural assets. The University must also ensure that its research results meet society's needs and that its environment is capable of supporting research at the highest world level.

Human resource development is one of the most important duties that a university must fulfill as a center of intellectual pursuit. I believe that university education should aim at cultivating people who are morally and socially independent, as well as international and interdisciplinary in their perspective. Toward this aim, I would like to see Nagoya University further globalize its education and promote postgraduate education involving more active interdisciplinary collaboration. I am convinced that by realizing these objectives Nagoya University will be able to offer truly outstanding education.

Nagoya University, as one of Japan's pivotal comprehensive research universities, plays a great role in shaping and influencing the future of today's youth in Japan and overseas, in these times of growing diversification of values, confusion and uncertainty. I am determined to do my best to further Nagoya University's continued growth and progress as an academic establishment that cultivates courageous intellectuals who can lead us into a new era and that produces the world's foremost educational and research results. Your support and cooperation in this endeavor would be most sincerely appreciated.

### Dr. Michinari HAMAGUCHI

#### Educational Background and Professional Experience

1980 M.D., Ph.D., Nagoya University  
 Research Associate, Cancer Research Facility, School of Medicine, Nagoya University  
 1993 Professor, Pathological Control Research Facility, School of Medicine, Nagoya University  
 2002 Director, Pathological Control Research Facility, School of Medicine, Nagoya University  
 2003 Professor, Center for Neural Disease and Cancer, Graduate School of Medicine, Nagoya University  
 2004 Director, Center for Medical Education Research and Support, Graduate School of Medicine, Nagoya University  
 2005 Dean, Graduate School of Medicine and School of Medicine, Nagoya University  
 2009 President, Nagoya University

#### Area of Expertise

Cancer biology, cancer biochemistry, cellular biology

#### Area of Research

Molecular mechanism in cancer invasion and metastasis

#### Hobbies

Music appreciation, drawing, gardening

## Seventy Years of Brilliant Progress

When Nagoya University was established in 1939 as the country's last imperial university, it comprised the School of Medicine and the School of Science and Engineering. In 1949, following educational reform, the Eighth Higher School, Nagoya Commercial College and other educational establishments were integrated into Nagoya University, giving birth to the new Nagoya University comprising 6 schools. The University continued to develop steadily, undergoing numerous reorganizations and reforms. Since 2004, the University has been operated as a National University Corporation. It has

become an international center of education and research with 9 undergraduate schools and 13 graduate schools. The year 2009 marks the 138th year since the establishment in 1871 of the University's forerunner, the temporary hospital and temporary medical school of the former Nagoya clan, as well as the major milestone of Nagoya University's 70th anniversary since its foundation as an Imperial University. Nagoya University is committed to generating world-leading results in research, and to training courageous intellectuals capable of solid logical thinking and possessing imaginative intelligence.

### First Created as a Hospital and Medical College

- 1871 Temporary Hospital/Temporary Medical School
- 1878 Public Medical School
- 1881 Aichi Medical School
- 1901 Aichi Prefectural Medical School
- 1903 Aichi Prefectural Medical College
- 1908 The Eighth Higher School
- 1920 Aichi Medical College/Nagoya Commercial High School
- 1931 Nagoya Medical College



Main gate of Aichi Medical School



Surgical operation under Roretz's guidance at public hospital

1871

### Chartered as an Imperial University

- 1939 Nagoya Imperial University
- 1944 Nagoya Industrial Management College  
Nagoya Commercial College
- 1945 Okazaki Higher Normal School
- 1947 Nagoya University (\*renamed)



Temporary administrative offices of Nagoya Imperial University at Nishifutaba-cho and students of School of Science and Engineering



Lecture in Anatomy

1939

### Expanded in Postwar Education Reforms

- 1949 Nagoya University (under new educational system)



Toyoda Auditorium (around 1960)



Main gate of University Hospital

1949

### Incorporated as National University Corporation

- 2004 National University Corporation Nagoya University



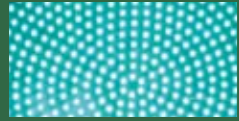
Toyoda Auditorium (after renovation in 2007)



The launch of National University Corporation Nagoya University

2004

## Excellence in Research Fostered by a Free and Vibrant Academic Culture



Professor Isamu AKASAKI and Blue Light-emitting Diodes



Four Nobel Laureates Demonstrate Nagoya University's World-class Research Excellence



Our Flagship Research Projects

### GCOE Programs

Prof. Gen SOBUE, Graduate School of Medicine

Prof. Naoshi SUGIYAMA, Graduate School of Science

Prof. Toshio FUKUDA, Graduate School of Engineering

Prof. Tetsuzo YASUNARI, Hydrospheric Atmospheric Research Center



More Projects Keeping Nagoya University in the Spotlight

Prof. Koji IKUTA, Graduate School of Engineering

Prof. Hisanori SHINOHARA, Graduate School of Science

自由闊達な空気が生む際だつ研究力



## Producing a New Light Source for the 21st Century



Dr. Isamu AKASAKI

Thinking it would be too difficult to realize within the 20th century, many researchers abandoned development of high-performance blue light-emitting diodes (LEDs). However, Nagoya University professor Isamu Akasaki remained steadfast in his research for 20 years. In 1989, he succeeded in becoming the first to achieve the goal of producing a new light source for the 21st century.

Professor Akasaki achieved this by using the compound gallium nitride (GaN), revolutionizing the field of semiconductor research. Blue LEDs offer immeasurable benefits to society, and are utilized today in a wide range of technologies such as traffic lights, large-scale display monitors, next-generation optical memory discs, and even home lighting. The applicability of GaN and related semiconductors does not end with its use in light sources. It is also expected that they can be applied to such technologies as ultra high-speed, high-power transistors and UV detectors, which will be indispensable in an IT-based society.

During his life as a researcher, Professor Akasaki held fast to his idea that "Once you've resolved to accomplish something, never give up."

Among the many awards he has received, in 2004, in honor of the research results he achieved with such unwavering resolve, he was recognized as a Person of Cultural Merit by the Japanese government for his significant contributions to culture.

# Four Nobel Laureates Demonstrate Nagoya University's World-class Research Excellence



## Nobel Prize in Chemistry, 2001

In October 2001, the Royal Swedish Academy announced its award of the Nobel Prize in Chemistry to Dr. Ryoji Noyori and Dr. W. S. Knowles (USA) for their work on chirally catalyzed hydrogenation reactions, and to Dr. K. B. Sharpless (USA) for his work on chirally catalyzed oxidation reactions. Their research – an important topic of study in the 20th century – enabled Dr. Noyori and his fellow laureates to realize their dream of making possible the artificial and preferential production of enantiomers. Enantiomers are molecules existing in many organic compounds that are mirror images of each other but not identical, i.e., with a right- and left-side relationship but with each side having a different character. While one side could become a promising medicine, the other could equally become a dangerous toxin. It has therefore become a major issue in chemistry to find ways to preferentially produce right- and left-side products. Dr. Noyori's research makes it possible to artificially produce right- and left-side molecules using catalysts. This research

has tremendous potential in the creation and production of medicines, aromatic chemicals, and materials in harmony with the natural environment.

In 1957, Dr. Noyori entered the Undergraduate School of Industrial Chemistry, Faculty of Engineering at Kyoto University, and later was appointed associate professor at Nagoya University, involved in synthetic organic chemistry. After switching his research base from Nagoya University to Harvard for postdoctoral work, he returned to Nagoya University and became a full professor in 1972. The research contacts he made with many renowned chemists offered him expanded opportunity to continue his search for the development and application of new methodologies in the field of organic chemistry. Presently, Dr. Noyori is an organic chemist based at Nagoya University and president of the RIKEN and continues to realize remarkable achievements in the field of organic chemistry through his collaborations with numerous researchers worldwide.



**Dr. Ryoji NOYORI**

1967 Ph.D., Kyoto University  
1968 Associate Professor of Chemistry, Nagoya University  
1997-1999 Dean, Graduate School of Science, Nagoya University  
2003-University Professor, Nagoya University



**Dr. Osamu SHIMOMURA**

1960 Ph.D., Nagoya University  
1963 Associate Professor, School of Science, Nagoya University  
2008-Distinguished Invited University Professor, Nagoya University  
2009-University Professor, Nagoya University



**Dr. Toshihide MASKAWA**

1962 Graduated from School of Science, Nagoya University  
1967 Ph.D., Nagoya University  
Research Associate, School of Science, Nagoya University  
2007-Distinguished Invited University Professor, Nagoya University  
2009-University Professor, Nagoya University



**Dr. Makoto KOBAYASHI**

1967 Graduated from School of Science, Nagoya University  
1972 Ph.D., Nagoya University  
2008-Distinguished Invited University Professor, Nagoya University  
2009-University Professor, Nagoya University

## Nobel Prize in Physics, 2008

In October 2008, the Academy announced its award of the Nobel Prize in Physics to three esteemed scientists: Yoichiro Nambu (USA), and Nagoya University graduates Toshihide Maskawa, a Distinguished Invited University Professor at Nagoya University, professor emeritus at Kyoto University, and professor of physics at Kyoto Sangyo University, and Makoto Kobayashi, professor emeritus at the High Energy Accelerator Research Organization (KEK). The two Nagoya University scientists received the Nobel Prize for forecasting, over three decades ago, "the discovery of the origin of the broken symmetry which predicts the existence of at least three families of quarks in nature." In 1972, the two presented their Kobayashi-Maskawa theory, which states that CP symmetry violation can be explained with six types of quarks, one of the subatomic particles that constitute matter. This theory was proved in 1995 with the discovery of the sixth quark, known as the top quark. Among the numerous theories attempting to explain CP symmetry violation, the Kobayashi-Maskawa theory remains the most concise and well-formed, and today is one of the key components of the standard model of particle physics.

Professor Maskawa graduated from Nagoya University's School of Science in 1962. After completing his doctoral course in science in 1967, he continued his career as a research associate in the science department, then as a professor of the Institute of Nuclear Study at the University of Tokyo and later as a professor at Kyoto University's Yukawa Institute for Theoretical Physics (YITP). In 2003, he became a professor at Kyoto Sangyo University's Faculty of Science, and in October 2007 was appointed Distinguished Invited University Professor at Nagoya University.

Professor Kobayashi graduated from Nagoya University in 1967 and, after completing his doctoral course in science in 1972, became a research associate at Kyoto University's Faculty of Science. He later became a professor at KEK, the High Energy Accelerator Research Organization, and then director of the Institute of Particle and Nuclear Studies at KEK before becoming a professor emeritus at the same institute.



Dr. Maskawa and Dr. Kobayashi while attending graduate school



At a party hosted by Theoretical Particle Physics Group (E-ken), Graduate School of Science



At the 3rd Yoshimasa Hirata Memorial Lecture

## Nobel Prize in Chemistry, 2008

It was great news in October 2008 when organic chemist and marine biologist Professor Osamu Shimomura from Nagoya University was announced as one of three distinguished scientists to receive the 2008 Nobel Prize in Chemistry, sharing it with Martin Chalfie of Columbia University and Roger Y. Tsien of the University of California, San Diego. They received this award for the discovery and development of the green fluorescent protein, GFP. Professor Shimomura was the first to discover and successfully refine GFP in luminous jellyfish. Using this GFP as a marker, it is now possible to directly observe protein behavior in living cells. This significantly

contributes to the development of molecular biology and biosciences. Professor Shimomura spent two and a half years at Nagoya University's School of Science as a research student and received his PhD in Sciences in 1960. In that same year, he went to Princeton University as a Fulbright scholar, then returned to Japan and for two years beginning in 1963 was an associate professor in the School of Science at Nagoya University. Today he is a professor emeritus at Marine Biological Laboratory (MBL) in Woods Hole, Massachusetts and Boston University Medical School.

# Our Flagship Research Projects

## GCOE Programs at Nagoya University

Nurturing next-generation leaders with original research projects and quality postgraduate education

The Global Center of Excellence (GCOE) Program of the Ministry of Education, Culture, Sports, Science and Technology of Japan (MEXT) supports universities in establishing internationally competitive education and research so as to nurture future world-leading researchers through projects conducted at the world's highest standards. Nagoya University, recognized as an educational and research center worthy of the support, has had seven of its research projects designated as GCOE Programs between academic years 2007 and 2009. In fact, these projects had already produced internationally acclaimed results before their GCOE designation and have remained at the world's front line of interdisciplinary collaboration in their respective fields. Given the rapid development of globalization and innovative research, fostering next-generation researchers represents a national strategy whose results can determine the country's future. Nagoya University plays an important role in this vital task, supporting Japan's and the world's progress into the future through its original research projects and quality postgraduate education. The following pages offer an overview of four of the seven GCOE research projects selected for special funding in 2008-2009.



### 1

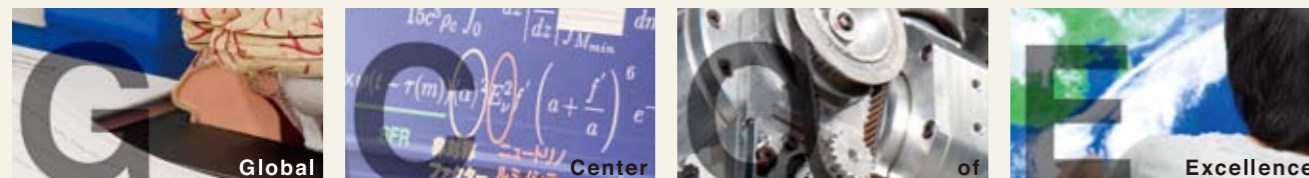
#### Integrated Functional Molecular Medicine for Neuronal and Neoplastic Disorders

**Program Leader: Prof. Gen SOBUE, Graduate School of Medicine**

#### Promoting interdisciplinary research and leading molecular target-based treatments that transform next-generation medicine

The most important challenge for medicine in the 21st century is conquering cancer and neurodegenerative diseases such as Alzheimer's disease. Previously, research into neurodegenerative diseases caused by the death of specific nervous cells, and cancer, which is abnormal growth of cells, used to be conducted separately because of their differences. At this Center, however, for more than ten years now, researchers of these two types of disease have been collaborating following the discovery of functional molecules common to neurodegenerative disorders and cancer, hoping to apply research results on each side to diagnosis and treatment on the other. Other research centers have since followed this Center's example, making it the world's leader in the field for its foresight.

This Center's ultimate objective is to develop molecular target-based treatments of neurodegenerative disorders and cancer. A number of treatment methods targeted at functional molecules common to the pathogenesis of the two disease types are currently in the clinical testing stage, only one step away from application to human patients, with this Center's research results attracting attention from all over the world. This Center's program is characterized by its full scope of research from fundamental studies to practical application. Collaborations with the National Center for Geriatrics and Gerontology and the Aichi Cancer Center, Japan's top research centers specializing in neurodegenerative disorders and cancer, also add strength to the educational and research functions of the Program.





## 2

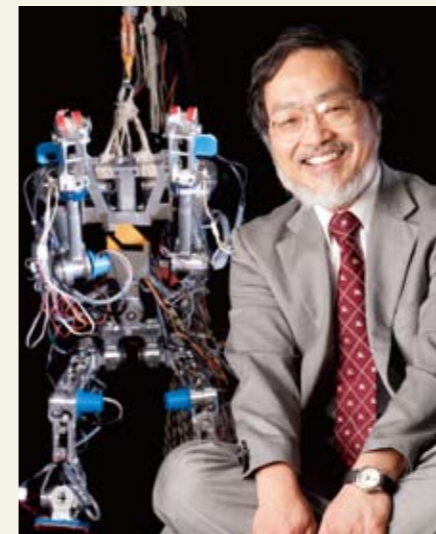
Quest for Fundamental Principles in the Universe: from Particles to the Solar System and the Cosmos

**Program Leader: Prof. Naoshi SUGIYAMA, Graduate School of Science**

### Collaborating with research centers worldwide in interdisciplinary research covering the entire universe

Throughout the universe, diverse forms of matter and structures exist, from the smallest, such as elementary particles, to the largest, such as planets, galaxies and larger-scale structures. Because of this diversity, research on the cosmos has been carried out in separate segments. It is necessary, however, to understand this diversity comprehensively on an overall scale if basic laws common to all matter and structures are to be identified. Accordingly, this Center works in an interdisciplinary manner, covering the entire universe from elementary particles to the solar system and the rest of the cosmos. The Center comprises mathematical physicists, planetary science specialists, and researchers from a variety of disciplines including the Division of Particle and Astrophysical Science of the Graduate School of Science, which conducts research into elementary particles, space observation and theoretical studies, and the Solar-Terrestrial Environment Laboratory, engaged in direct observation of solar and terrestrial phenomena.

This Center is characterized by its leading international research activities in the world's most advanced projects in various areas. It leads projects at the NANTEN Telescope in Chile and the OPERA Experiment testing neutrino oscillation in Italy, and participates in the Suzaku project (X-ray telescope-equipped satellite), CERN's LHC Experiment using the world's largest particle accelerator in Switzerland, and ESCAT radar observations. This Center also conducts interdisciplinary research projects on such themes as particle acceleration, dark matter and energy, the origin of interstellar matter and structures, and the origin of matter, space and time, in order to cultivate "seeds" for new research.



## 3

COE for Education and Research of Micro-Nano Mechatronics

**Program Leader: Prof. Toshio FUKUDA, Graduate School of Engineering**

### Creating new materials, developing new systems and realizing practical applications in advanced biomedicine

Micro-nano mechatronics technology is applied in a wide range of fields from game machines and automobiles to medical inspection and robotics. This Center has developed as Japan's pioneer in micro-nano mechatronics research, based on research achievements by the Department of Micro-Nano Systems Engineering of the Graduate School of Engineering, the first graduate program of its kind, and with support from the industrial community which uses such achievements. At present, the Center continues its world-level research with UCLA as its partner and UCLA researchers as members of the Center.

This Center gathers together researchers in materials science, mechanical science, system measurement/control engineering and biomedicine to participate in research concerning new functional materials and mechatronics. Research achievements in these areas are then integrated for system development. The Center conducts its research with an eye toward practical application in regenerative medicine and other advanced biomedical areas. The Center's research is characterized by its approach, which covers not only devices but also system development. Practical application is also included in the Center's research scope so as to respond to society's needs.

## More Projects Keeping Nagoya University in the Spotlight



### 4

From Earth System Science to Basic and Clinical Environmental Studies

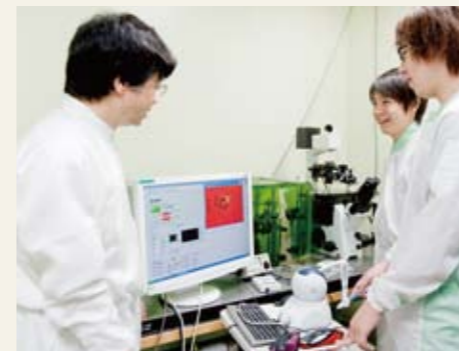
**Program Leader: Prof. Tetsuzo YASUNARI, Hydrospheric Atmospheric Research Center**

#### Creating an innovative approach to earth science and environmental studies

The GCOE Program “From Earth System Science to Basic and Clinical Environmental Studies” is an educational and research program that takes over, and attempts to further develop, the achievements of the 21st Century COE Program “Dynamics of the Sun-Earth-Life Interactive System (SELIS-COE)” (2003-2007). This Center aims at forming a center for new environmental studies that brings together previously separate diagnostic disciplines (science) and therapeutic disciplines (engineering, agriculture, etc.) upon the foundation of the new earth system science developed within the framework of SELIS-COE. The Center’s pillars are clinical environmental studies that comprehensively diagnose regional environmental problems, and basic environmental studies that examine common inter-regional problems and universal challenges through interdisciplinary approaches.

This Center promotes world-leading research and education in environmental studies. In its research aspect, the Study Consortium for Earth-Life Interactive System (SELIS), an internal organization of Nagoya University making use of

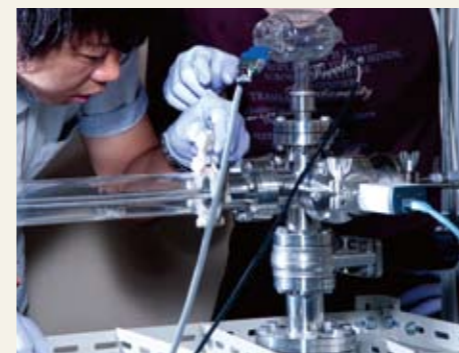
results of SELIS-COE, serves as a base for domestic and international joint research in environmental studies. Its educational aspect focuses on a special doctoral course in integrated environmental studies associated with the Global Environmental Leaders Program of the Graduate School of Environmental Studies. In the framework of this Center, clinical research in environmental studies is promoted in Japan and other parts of Asia in collaboration with research and educational establishments in various countries. The Center maintains close cooperative ties with partner universities including Wageningen University and VU University Amsterdam in the Netherlands, and the University of California, Berkeley and the University of California, Santa Barbara in the United States, so that participants will develop into researchers and experts of international standing in basic and clinical environmental studies and become valuable human resources not only for universities and research institutes but also for international organizations, national and regional governments, and related private businesses.



**Prof. Koji IKUTA**

Biomedical Micro/Nano Mechatronics Laboratory,  
Department of  
Micro-Nano Systems Engineering,  
Graduate School of Engineering

The Biomedical Micro/Nano Mechatronics Laboratory, also known as the Ikuta Laboratory, conducts education and research with the objective of creating next-generation technologies that both cannot be realized through conventional industrial expertise, and that serve such areas as medicine, welfare and biotechnology. Specifically, the Laboratory applies mechanical science to medical engineering, which has not been sufficiently done thus far. Accordingly, the Laboratory has two main research themes: 1) biomedical micro-nano machines, represented by chemical IC chips and micro-nano optical imaging; and 2) robotic mechatronics systems for medical and welfare purposes such as active multiarticular endoscopes, active catheters, and the Hyper Finger, a new robotic system for remote endoceliac surgery.



**Prof. Hisanori SHINOHARA**

Laboratory of  
Nano-Structured Materials,  
Graduate School of Science

Device engineering today faces technical and economic difficulties in further miniaturizing electronic devices with current fabrication technologies. The search for alternative device channel materials and designs has become inevitable. Ever since Krätschmer and Huffman first reported in 1990 on the synthesis of visible amounts of carbon nanotubes and other fullerenes from C60 carbon molecules, these unique molecules have been considered some of the most promising materials in nanoscience and nanotechnology today. For several years now, in fact, carbon nanotubes and other fullerenes have been successfully used for nanometer-size devices such as diodes, transistors, and random memory cells. During the past decade, this laboratory has aimed to clarify the structures and electronic properties of such nano-carbon materials as fullerenes, endohedral metallofullerenes, carbon nanotubes, and nano-peapods.



## Nurturing Future Global Leaders



Global Environmental Leaders Program



Automobile Engineering Summer Program



Global Human Resource Development Program

世界に通用する真のリーダーを育成

### Promoting Active Leaders in Solving Global Environmental Problems

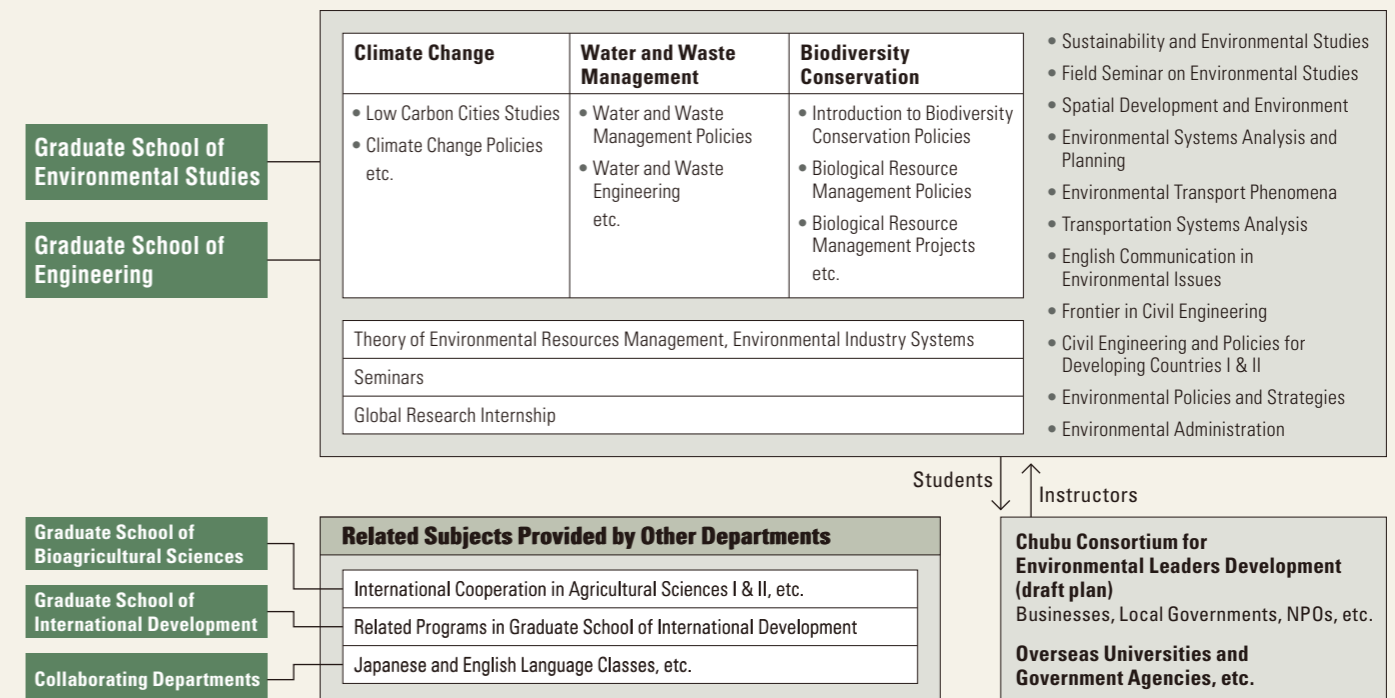
Due to rapid economic growth and social changes, developing countries worldwide, including in Asia and Africa, face serious environmental problems such as air and water pollution, waste management, biodiversity conservation, and global warming and climate change. Finding solutions to these problems is hard because of interrelated factors such as health education, infrastructure development, energy resources security, integration of environmental and economic concerns, and globalization. Sustainable development cannot be achieved unless these difficulties are overcome on both national and global scales.



Environmental specialists with the expertise and abilities to implement relevant solutions are the key to solving these problems. There is an urgent need to educate professionals with competitive skills and then translate these skills into concrete actions.

In 2008, Nagoya University established the master's course "Nagoya University Global Environmental Leaders Program (NUGELP)" to foster people able to understand and analyze environmental problems from a global perspective, and propose concrete ways of solving problems. Through various efforts such as distinctive curricula and student services, our goal is to become a global center of learning where motivated students from Asia, Africa, and elsewhere in the world, including Japan, can achieve their aims.

### Curriculum Model



## Automobile Engineering Summer Program



**JAPAN**  
**2009 Summer Intensive Program at Nagoya University**  
**June 16~July 22, 2009**  
**Latest Advanced Technology & Tasks in Automobile Engineering**  
 + Elementary Japanese Language: English Place: Nagoya, Japan  
 Inquiries & Applications: International Office of your University

**Application Deadline: February 28, 2009**

**WEBSITE: <http://www.eng.nagoya-u.ac.jp/en/nusip/>**

### Nagoya University Summer Intensive Program (NUSIP)

With support and cooperation from the Japanese automotive industry and related enterprises, the Graduate School of Engineering offered a 6-week summer program titled "Latest Advanced Technology & Tasks in Automobile Engineering," from June 16 to July 22, 2009. Conducted entirely in English, the program was aimed at overseas students and Nagoya University students in engineering-related fields. The program's greatest feature was its exciting lectures from various viewpoints regarding state-of-the-art technologies in areas such as hybrid automobiles, fuel cells, environmental strategies, accident prevention, and expressway traffic. The lectures were conducted with support from some of the industry's leading technologists and researchers as well as faculty members of Nagoya University. Although of short duration, the program's objectives enabled overseas students to study some of the various fields that are particularly advanced in Japan, as well as increase their interest in this country and its culture. The program also enabled Nagoya University students to improve their English and communication skills and broaden their international horizons in conjunction with studies in their specialty fields.

## Global Human Resource Development Program



### Program Founded on Local Industry-academia Collaboration

In April 2009, the Nagoya University's School of Economics launched its Global Human Resource Development Program in partnership with twelve globally developed representative Japanese corporations including Toyota Motor Corporation, Mitsui & Co., Ltd., and Sumitomo Mitsui Banking Corporation.

This Program, a collaboration between the industrial and academic sectors, takes advantage of Nagoya University's location in the Chubu region, which has a high concentration of internationally known industrial sites. The Program aims at training future leaders with a strong sense of responsibility and a business mindset indispensable to globally developed corporations, with each sector providing specialized educational materials. In academic year 2009, three courses are being held: Global Manufacturing Management, Global Financial Management, and Global Logistics Management. The Program's students attend lectures featuring concrete topics and the pragmatic mindset of instructors dispatched from participating corporations. Students also have the opportunity to observe actual manufacturing and distribution sites to identify required skills and abilities. Two-way interactive classes enable students to develop their presentation, communication and thinking skills.

#### Participating corporations:

- Toyota Motor Corporation
- Mitsui & Co., Ltd.
- Sumitomo Mitsui Banking Corporation
- Sintokogio, Ltd.
- Denso Corporation
- Mori Seiki Co., Ltd.
- Daido Steel Co., Ltd.
- Brother Industries, Ltd.
- Toyoda Tsusho Corporation
- Meiko Trans Co., Ltd.
- Nipponkoa Insurance Co., Ltd.
- INOAC Corporation

#### Cooperating corporations and organizations:

- Bank of Japan
- Chubu Bureau of Economy, Trade and Industry (METI)
- Chubu Economic Federation
- Central Japan Industries Association (Chu San Ren)
- Nagoya University Graduate School of Law
- Nomura Securities Co., Ltd.
- Toto Ltd.
- Aisin Seiki Co., Ltd.
- Toyofuji Shipping Co., Ltd.

## JSPS Asia/Africa Science Platform Programs



Fostering Legal Assistance in Asia as a Leader in Judiciary Globalization



Skills Development for the Emerging New Dynamism in Asian Developing Countries under Globalization



From 1998, the Graduate School of Law has made great efforts in fostering talented legal professionals in the field of legal assistance. To date, numerous students from various Asian countries, including employed lawyers and judges, have been accepted. After learning about Japanese law in English, they return to their respective countries with enhanced knowledge and understanding. In efforts to establish a true support system based on these achievements, "Research and Education Centers for Japanese Law" offering education about Japanese law in Japanese has opened at Uzbekistan's Tashkent State Institute of Law, at the National University of Mongolia, and at Vietnam's Hanoi Law University.

In 2008, a center was also established in Cambodia, with the opening ceremony held at the Royal University of Law and Economics. This center is primarily for students in the Royal University of Law and Economics Faculty of Law, and provides a thorough knowledge of Japanese law instructed in English with the aim of contributing to future legal assistance in Cambodia.

Nagoya University's endeavors in Asia lead the way in internationalizing Japan's judiciary system, with high expectations for further expansion and support activities in the future.



Research and Education Center for Japanese Law (Mongolia)



Research and Education Center for Japanese Law (Vietnam)



Research and Education Center for Japanese Law (Uzbekistan)



Research and Education Center for Japanese Law (Cambodia)

# Skills Development for the Emerging New Dynamism in Asian Developing Countries under Globalization



The Asia/Africa Science Platform Program of the Japan Society for the Promotion of Science (JSPS) encourages joint research by building sustainable cooperative relationships between research centers in Japan and Asia/Africa under Japanese leadership. The program thereby establishes research centers that will be pivotal in concerned research areas, training young researchers and encouraging researcher interaction, with the ultimate purpose of contributing to solving problems in Asia and Africa. The Program aims for concrete research results, rather than merely promoting academic exchange.

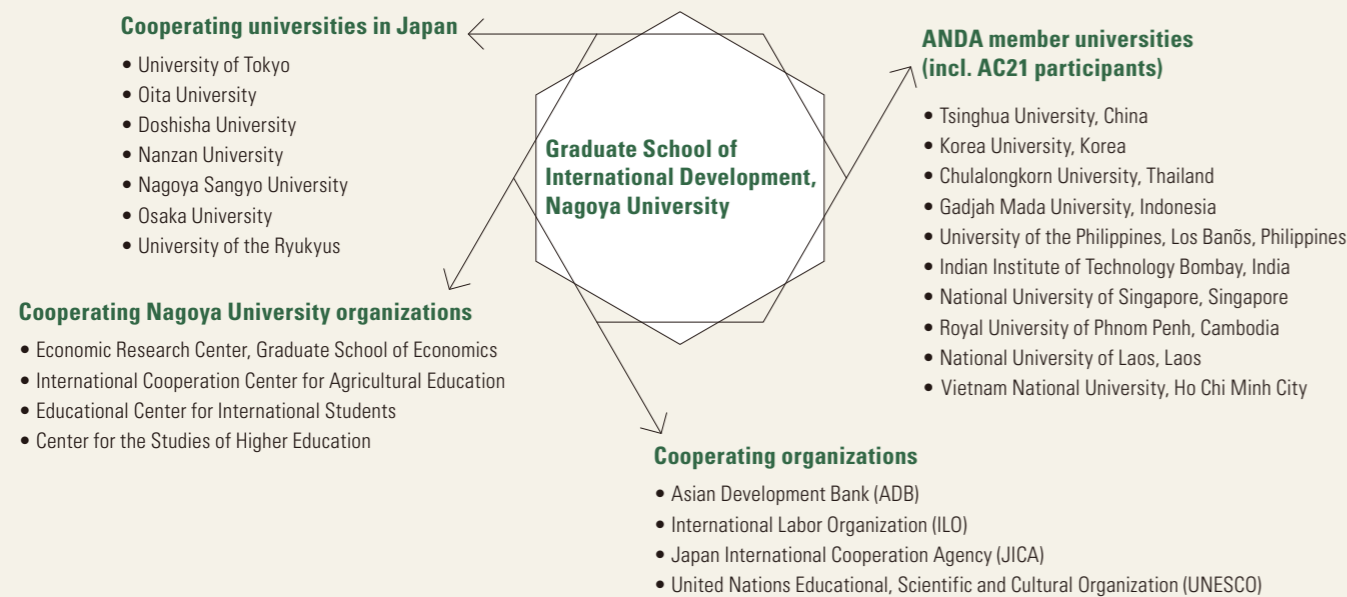


## Research Outline

The research project "Skills Development for the Emerging New Dynamism in Asian Developing Countries under Globalization," targeting late-developing countries in the Mekong River basin, aims to achieve the following through collaboration by a network of universities in Asia: understanding the impacts of the new dynamism in Asia, in particular that of globalization, regional integration and changing international divisions of labor on Asian late-developing countries; studying challenges to be overcome in industrial development for reducing poverty and

sustaining growth, and in developing the human resources necessary for industrial development; and providing assistance in industrial human resource development in order to overcome these challenges. Through the researcher interaction realized in this project, research & action centers aimed at the advancement of late-developing countries will be established. Finally, this research project aims to contribute both to narrowing the gap between late-developing countries and the rest of Asia, and to pan-Asian sustainable development over the long term.

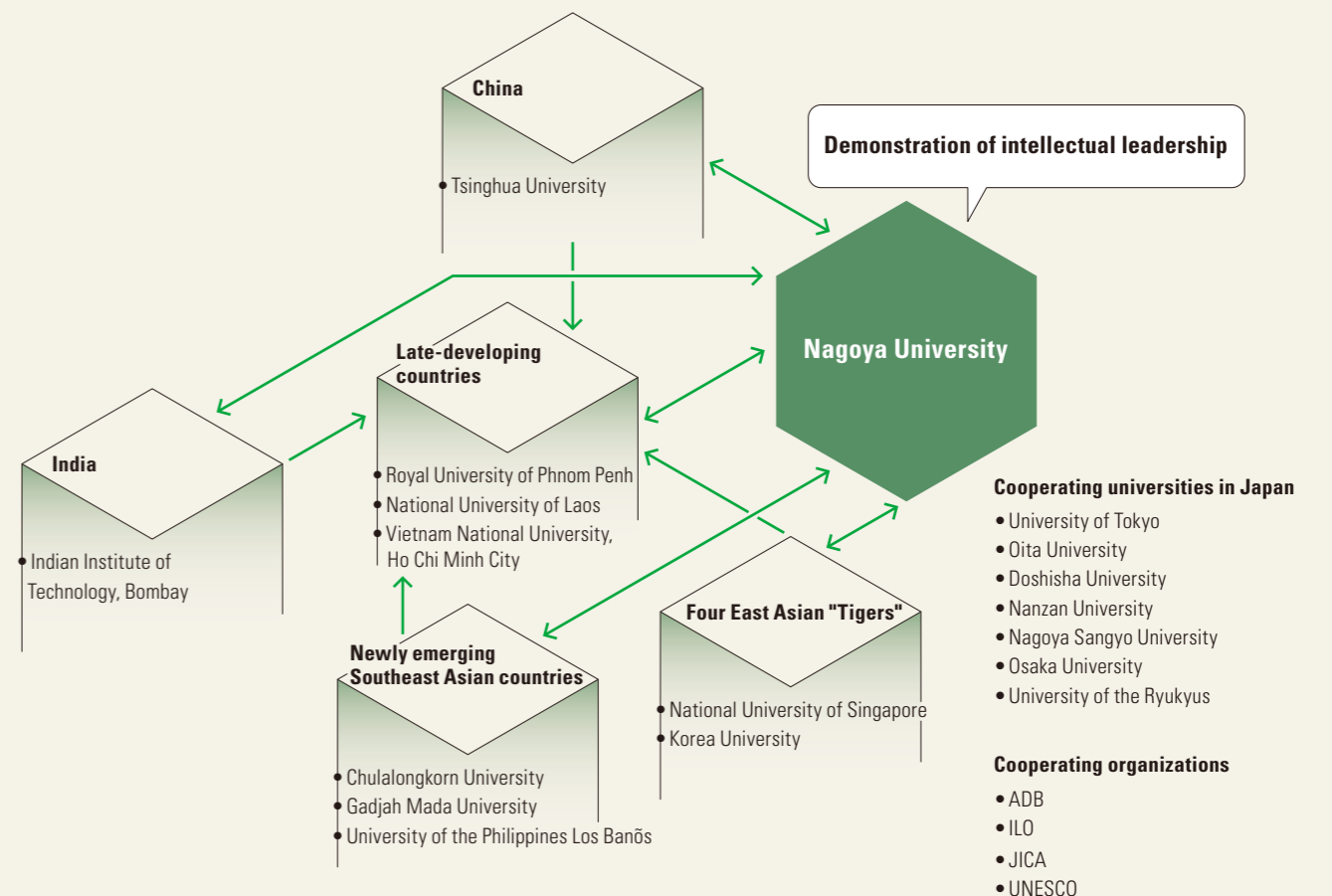
## Construction of the "Academic Network for Development in Asia" (ANDA)



First ANDA International Seminar



## Reinforcement of the Academic Research Network in Asia



## Nagoya University's Global Network



Overseas Research and Education Bases



Global 30 Project – Bringing Nagoya University to the World



NUPACE: Short-term Student Exchange Program



Academic Consortium AC21



Our Partner Institutions

名古屋大学のグローバル展開

## Overseas Research and Education Bases



### ■ Shanghai Liaison Office (Shanghai, China)

The Shanghai Liaison Office was established in November 2005 with the aims of facilitating academic exchange with higher education and research institutes in China, promoting public relations in China, and connecting NU alumni overseas.

<http://www.nushanghai.provost.nagoya-u.ac.jp/en/>

D, 27F, Suntong Infoport Plaza, No. 55, Huaihai Road (W), Shanghai, China  
Tel/Fax: +86-21-6280-6185 E-mail: [office@nushanghai.net.cn](mailto:office@nushanghai.net.cn)



### ■ Uzbekistan Liaison Office (Tashkent, Uzbekistan)

Our new liaison office in Uzbekistan will open in 2010 with the goal of further promoting on-site education and research.



### ■ Technology Partnership of Nagoya University Inc. (North Carolina, USA)

Since its foundation, Nagoya University has created numerous research innovations and provided many highly skilled human resources to industry. Because of its high priority on alliance building between academia and industry, Nagoya University continues to achieve the highest licensing revenue of all universities in Japan. In October 2007, Technology Partnership of Nagoya University Inc. was established in the state of North Carolina to enhance technology exchange between the U.S. and Japan, especially the Nagoya area.

4819 Emperor Blvd., Suite 400, Durham, NC 27703, USA

### ■ Research and Education Centers for Japanese Law

These Centers cooperate with local universities in transitional countries in Asia to provide education in Japanese language and Japanese law. Currently, four centers have been established as bases for information exchange and joint research between Japan and the respective host country:

- Uzbekistan: Tashkent State Institute of Law (Center founded Sep. 2005)
- Mongolia: National University of Mongolia, School of Law (Center founded Sep. 2006)
- Vietnam: Hanoi Law University (Center founded Sep. 2007)
- Cambodia: Royal University of Law and Economics (Center founded Sep. 2008)

<http://cjl.law.nagoya-u.ac.jp/content/en/>

### ■ Institute for Business Litigation (Freiburg, Germany)

Established as part of a new framework for more effective transnational business litigation, this research center was founded in November 2005 in Germany to obtain local legal information.

<http://www.law.nagoya-u.ac.jp/ncli/en/>

### ■ Field Research Center (Ulaanbaatar, Mongolia)

The Nagoya University Field Research Center was established in September, 2009 within the Mongolian University of Science and Technology. The Center is expected to further encourage our active collaborations and exchanges by promoting more effective research.

# The Global 30 Project – Bringing Nagoya University to the World

In July 2009, the selection results of the 2009 Project for Establishing Core Universities for Internationalization (Global 30) were announced, with Nagoya University standing out as one of the Global 30 leaders.

The objectives of Global 30 are to strengthen the international competitiveness of Japanese higher education and to offer an education with standards that appeal to foreign students while, through creating an environment where Japanese students work together with international students, fostering highly educated individuals who can be active internationally. The project comprehensively supports a plan to create universities that act as bases for internationalization by providing both the high level of education expected from universities and environments that make studying in Japan more accessible for overseas students.

## Changes Ahead for Nagoya University

To lead Japan's universities toward internationalization, Nagoya University must transform itself into a "university of the world". This means building a new environment in which Japanese and international students work side by side. In this way, the high standards of undergraduate and graduate education Nagoya University has achieved will be more widely accessible to students from overseas, and the University will be able to educate individuals with the ability to interact on the world stage. Here are some of the strategic measures being taken to realize this goal.

### ✓ New All-English Courses

1. Creating undergraduate degrees from which students can graduate entirely in English in the sciences (Physics, Engineering, Agriculture) and in the humanities (Law, Economics).
2. Establishing international courses for master's and doctoral degrees in the sciences and the humanities.
3. Accepting a greater number of international students to the graduate courses already available in English (Law, Engineering, International Development, and Environmental Studies).

	Name of the Courses	Name of the Schools / Graduate Schools	Degrees Offered		
			Bachelor	Master	Doctor
1	Automotive Engineering Program	• School of Engineering	●		
2	Fundamental and Applied Physics Program	• School of Engineering • School of Science	●		
3	Chemistry Program	• School of Science • School of Engineering	●		
4	Biological Science Program	• School of Science • School of Agricultural Sciences	●		
5	Program in Social Sciences	• School of Law • School of Economics	●		
6	Physics and Mathematics Graduate Program	• Graduate School of Science • Graduate School of Mathematics		●	●
7	Chemistry Graduate Program	• Graduate School of Science • Graduate School of Engineering		●	●
8	Biological and Bioagricultural Sciences Graduate Program	• Graduate School of Science • Graduate School of Bioagricultural Sciences • Graduate School of Medicine		●	
9	Biological and Bioagricultural Sciences Graduate Program	• Graduate School of Science • Graduate School of Bioagricultural Sciences			●
10	Medical Science Graduate Program	• Graduate School of Medicine			●
11	Graduate Program in Economics and Business Administration	• Graduate School of Economics		●	
12	Comparative Studies of Languages and Cultures Program	• Graduate School of Languages and Cultures		●	
13	International Development and Cooperation Course	• Graduate School of International Development		●	●
14	Department of the Combined Graduate Program in Law and Political Science LL.M (Comparative Law) Program in Law and Political Science LL.D (Comparative Law) Program in Law and Political Science	• Graduate School of Law		●	●
15	Young Leaders' Program (YLP) (Healthcare Administration Course of Master's Degree Program)	• Graduate School of Medicine		●	
16	The Forefront Studies Program for Civil Engineering	• Graduate School of Engineering			●
17	Nagoya University Global Environmental Leaders Program	• Graduate School of Environmental Studies		●	
18	Special Doctoral Graduate Program of Sciences of Atmosphere and Hydrosphere for International Students	• Graduate School of Environmental Studies			●

### ✓ Short Term Student Exchange and Japanese Language Education

1. Broadening the Nagoya University Program for Academic Exchange (NUPACE), a short term student exchange program, to admit a greater diversity of international students.
2. Requiring international students enrolled in an English course to take Japanese for their foreign language credits, thus improving their chances for interaction with Japanese students.
3. Continuing to hire more international faculty and to send young researchers abroad for education and study.

### ✓ International Student Recruitment through Overseas Offices and Partner Institutions

### ✓ Multiple Screening Methods for Selecting Outstanding International Students

1. Implementing an entrance examination process that can be completed overseas at the undergraduate level.
2. At the graduate level, exploring a variety of screening methods such as applicant document screening, interviews in students' home countries, and videoconferencing.

### ✓ Attractive Scholarships and Fee Exemptions

### ✓ Increased Convenience for International Students

1. Creating a system to facilitate payment of entrance examination fees and other fees from abroad, including credit card transactions and overseas bank accounts.
2. Implementing overseas orientations and other measures to provide a smoother transition for international students who have been accepted to the University.

### ✓ Proactive Employment of Tutors, Teaching Assistants and Research Assistants

### ✓ International Zone and English-speaking Office Staff

1. Creating an International Zone (one-stop office) where international students go for counseling and procedures.
2. Setting up an English-language admission office to deal with recruitment and entrance examinations.
3. Increasing the number of staff with English ability, and creating bilingual intra-university documents and bulletin boards.



### ✓ International Library Resources

### ✓ Adapted Living Environments

1. Opening a new housing facility that can receive as many as 100 international students.
2. Offering diverse menus in University cafeterias for vegetarians and students who are not comfortable with Japanese food.

### ✓ Career Support and Internships

1. Providing orientation and career path guidance to international students who want to work in a Japanese company.
2. Offering a variety of internship programs, such as the Summer Intensive Program on automobile engineering.

# NUPACE: Short-term Student Exchange Program



## A Unique Combination of Language, Culture, and Students' Fields of Study

Established in February 1996, the Nagoya University Program for Academic Exchange (NUPACE) is a short-term student exchange program through which international students enrolled at Nagoya University's partner institutions can study in Japan for four to twelve months. The program aims to foster friendships that extend beyond borders, internationalize through education, and motivate overseas students to pursue more extensive studies about Japan. The NUPACE academic year runs from late September to August of the following year, and students can choose one of two admission periods: late September or early April.

NUPACE offers a unique and flexible curriculum comprising Japanese language instruction, regional/intercultural studies about Japan, plus a wide range of courses in the student's major field of study, with most courses taught in English. As long as students take at least fifteen credits per semester, they can also design their own curriculum, enabling them to balance their interest in Japanese language and studies of Japan with their desire to pursue their major or independent research. Guided research is also available as a study option. Moreover, students proficient in Japanese are eligible to register for any course offered to degree-seeking students at Nagoya University.



**Achmat Qomarudin**  
majoring in English linguistics at Diponegoro University in Indonesia

Can I adapt to Japanese culture? While I don't have any Japanese language ability? Those are common questions among students who want to study in Japan. Actually I had similar problem, too, when I decided to join the NUPACE program. However, after joining the Japanese language class, and thanks to the NUPACE staff who are so kind and helpful, I have gradually been able to adapt to Japanese culture. There is also the tutoring system that introduced me to a Japanese student. I was able to share my thoughts with the tutor and make friends as well.

Japan is simply a beautiful place everyone must see. The blooming of sakura in spring, hot onsen, or seeing yellow, red leaves in fall are just a few examples. When I joined a home-stay program, I was able to taste and make many

kinds of Japanese foods and see first-hand how Japanese families live. In the meantime, I found that Nagoya University is a favourable place to study: my professor is warm, Japanese students are nice, and the facilities are modern.

Moreover, since the NUPACE program is for international students, I have had the chance to make friends with people from around the world! We have shared our background culture, talking about our foods, the language we use, having parties, going bowling, visiting fabulous places, and much, much more.

NUPACE simply suits people who want to have great new experiences. So what are you waiting for? Be the next NUPACEr!

## Interviews with NUPACE Students



**Arkadiusz Malinowski**  
majoring in semiconductor devices modelling at Warsaw University of Technology in Poland

My passion for Japan with its culture, tradition and language started a long time ago. My first trip to Japan in 2006 left me with so many unforgettable memories. At that time I could see for myself how great and amazing a country Japan actually is. I realized exactly how great it would be to live Japanese everyday life and to get soaked in this culture. That's why I applied to the NUPACE program. I will never forget when I got an e-mail from the NUPACE office informing me that I'd been accepted to the program. That day, one of the best adventures of my life began.

Being a Nagoya University student is a great opportunity and you can benefit a lot from it. First of all, the Japanese language course. Great teachers and a good program, correlated with textbook work that teaches you everyday-life Japanese. I also learnt a lot during my classes about

electrical engineering and Japanese politics. The range of subjects on offer is so wide. I also had a chance to do very interesting research work in an excellent laboratory. That was a great opportunity for me to get familiar with cutting-edge technologies in nanoelectronics.

Studying at Nagoya University was a very precious lesson and I got a lot of new experiences and memories. I am so proud to have been a student of this University. I have met many wonderful and kind people here from so many places around the world. Some of them will be my friends forever.

Japan is a country offering lots of chances and opportunities. It's up to you to find yours. NUPACE is the way. So what will your story be?

## The Global University – Architect of the New Century



The Academic Consortium for the 21st Century (AC21) was established on June 24, 2002 at the International Forum 2002 hosted by Nagoya University, Japan, as an international network comprised of educational, research and industrial organizations throughout the world. The Forum brought together the presidents and high-ranking delegations from twenty-five of the world's leading education and research institutions, and resulted in the founding of a new and vigorous global partnership in higher education, "Academic Consortium AC21."

### AC21 Member Institutions

As of October 30, 2009

<b>Australia</b> • University of Adelaide • University of Sydney	<b>France</b> • University of Strasbourg	<b>Japan</b> • Nagoya University	<b>Thailand</b> • Chulalongkorn University • Kasetsart University
<b>China</b> • Huazhong University of Science and Technology • Jilin University • Nanjing University • Northeastern University • Peking University • Shanghai Jiao Tong University • Tongji University	<b>Germany</b> • Chemnitz University of Technology • University of Freiburg	<b>Laos</b> • National University of Laos	<b>U.K.</b> • University of Warwick
	<b>Indonesia</b> • Gadjah Mada University	<b>South Africa</b> • Stellenbosch University	<b>USA</b> • North Carolina State University

**AC21 Partners** Japan: ITOCHU Corporation; CHUBU Electric Power Co., Inc.; Toyota Motor Corporation; NGK Insulators, Ltd.  
 U.K.: Advantage West Midlands; Asia House

## AC21 Activities

AC21 considers itself a dynamic consortium. It supports its mission and fosters collaboration amongst members through the following forums, activities and projects.



### ✓ Collaboration in Research & Education

#### —International Forums

Held every two years, international forums provide members with the opportunity to reassess the role of higher education in society through keynote addresses by prominent public figures, presentations and panel discussions.

#### —Benchmarking

#### —Research Projects

Support for research networking among AC21 members is offered through the provision of funding and resources, which aim at developing and sustaining collaborative projects. The AC21 Special Project Fund (ACSPF), launched in 2009, endeavors to promote research and educational exchanges between member institutions.

#### —Workshops

### ✓ Initiatives for Students

#### —Student World Forums

Biennial conferences at which students from member institutions are invited to exchange ideas on issues of international concern. The conferences facilitate international friendship, encourage students to develop a global mindset, and strengthen the AC21 network.

#### —Online Education

Nagoya University Japanese Language Education, Media & Systems Group provides students from member institutions free access to Web-based Japanese language materials.

### ✓ Industry-Academia-Government Collaboration

AC21, taking advantage of its international network, seeks to facilitate collaboration between academia, industry and government at the global level.

## Third Student World Forum at Chemnitz University of Technology



From June 22 to 27, 2009, the Third Student World Forum was held at Chemnitz University of Technology (CUT), Germany. 53 students from 18 member institutions worldwide as well as AC21 representatives travelled to Chemnitz to join an exciting and inspiring week of workshops, social activities, and field trips.

### Academic Program – Workshops and Field Trips

The main part of the Forum included workshops, discussions and field trips exploring the topic "Meeting the Global Challenges: Production in the 21st Century."

A program was developed comprising ten workshops with a field trip to the Volkswagen plant in Mosel.

#### Workshops

1. The European Union: Providing Stability?
2. Production Engineering in SA Academic Environments
3. Challenges – Smart Systems Integration
4. Automobile Production
5. Challenges in Usability
6. Biomechanical Research in Human Locomotion
7. Bridging the Gap between Micro and Macro Manufacturing Technologies
8. Challenges in Lightweight Structures
9. Resources and Energy-efficient Technologies – Trends in the Production of Modern Plastic Parts
10. Forum Speeches and Discussion

#### Field trip – Volkswagen plant in Mosel

#### Social Events Program

The Social Events Program offered students and guests an opportunity to explore and understand German culture, especially in Saxony.

- Guided University Tour
- Sightseeing 1: Chemnitz
- Braustolz (brewery)
- Sightseeing 2: Ore Mountains
- Barbecue at Water Castle Klaffenbach (hosted by the Chancellor of Chemnitz University of Technology)
- Sightseeing 3: Dresden
- Sightseeing 4: Individual Program
- University Ball





# Our Partner Institutions

As of October 1, 2009

## Academic Exchange Agreements

- = Inter-University Agreement
- = Inter-School Agreement

### Asia

#### BANGLADESH

- Bangladesh Agricultural University
- Bangladesh University of Engineering & Technology

#### CAMBODIA

- Royal University of Phnom Penh
- Royal University of Law and Economics
- The Royal University of Agriculture

#### CHINA

- Nanjing University
- Central South University
- Jilin University
- Guilin University of Technology
- Huazhong University of Science and Technology
- Beijing University of Technology
- Chinese Academy of Sciences, Purple Mountain Observatory
- Chengdu Institute of Geology and Mineral Resources
- Chengdu University of Technology
- Tsinghua University
- Chinese Academy of Sciences, National Astronomical Observatories
- China University of Political Science and Law
- East China Normal University
- Peking University
- Fudan University
- Xi'an Jiaotong University
- Chinese Academy of Social Sciences, Institute of Literature and Institute of Literature of National Minorities
- Zhejiang University
- China National School of Administration
- East China University of Political Science and Law
- Chinese Academy of Sciences, Institute of High Energy Physics

- Shanghai Jiao Tong University
- Tongji University
- Northeastern University
- Harbin Institute of Technology
- Beijing International Studies University
- Nanjing University of Aeronautics and Astronautics
- University of Science and Technology of China
- Jiangsu Provincial Academy of Social Sciences (JSASS)
- Chinese Academy of Sciences, Shanghai Institute of Organic Chemistry
- Chinese Academy of Sciences, Institute of Process Engineering
- Polar Research Institute of China
- Southwest Jiaotong University
- Beijing Institute of Technology
- Chinese Academy of Sciences, Research Center for Eco-Environmental Sciences
- Tianjin University
- Chinese Academy of Social Sciences, Institute of Population and Labor Economics
- University of International Business and Economics
- Chinese Academy of Sciences, Xinjiang Institute of Ecology and Geography
- Chinese Academy of Sciences, Shanghai Institute of Ceramics

#### INDIA

- University of Pune
- Tata Institute of Fundamental Research
- Indian Institute of Technology, Madras
- Indian Institute of Science, Bangalore

#### INDONESIA

- Indonesian National Institute of Aeronautics and Space
- Gadjah Mada University
- The State University of Surabaya
- Universitas Padjadjaran
- Syiah Kuala University
- Diponegoro University
- Agency for the Assessment and Application of Technology (BPPT)
- Institut Teknologi Bandung
- University of Indonesia

#### REPUBLIC OF KOREA

- Korean Research Institute of Standards and Science, Astronomy Observatory
- Korea University
- Chungnam National University
- Mokpo National University
- Gyeongsang National University
- Korea Maritime University
- Ewha Womans University
- Korea Institute for Advanced Study
- Hanyang University
- Seoul National University
- Kyungnam University
- Sunkunkwan University
- Korea Legislation Research Institute
- Pukyong National University
- Pusan National University
- Hankuk University of Foreign Studies
- Kyung Hee University
- Chonnam National University
- University of Seoul
- Yonsei University
- Chonbuk National University
- Korea Institute of Geoscience and Mineral Resources
- Kyungpook National University

#### LAOS

- National University of Laos

#### MONGOLIA

- Health Sciences University of Mongolia
- National University of Mongolia
- Mineral Resources and Petroleum Authority of Mongolia
- National Legal Center of Mongolia
- Mongolian University of Sciences and Technology
- Mongolian Academy of Sciences, Institute of Geography

#### PHILIPPINES

- University of the Philippines, Los Banos
- University of the Philippines, Diliman

#### THAILAND

- Kasetsart University
- Chulalongkorn University
- Chulabhorn Research Institute/ Chulabhorn Graduate Institute

#### VIETNAM

- Vietnam Institute of State and Law
- Hanoi Law University
- Ho Chi Minh City University of Law
- Vietnamese Academy of Science and Technology, Ho Chi Minh City Institute of Resources Geography
- Vietnam National University, Ho Chi Minh City
- Hanoi University of Technology

#### TAIWAN

- National Chengchi University
- National Taiwan Normal University
- Soochow University
- National Chung Cheng University
- National Taiwan University
- National Tsing Hua University

### Pacific

#### AUSTRALIA

- University of Sydney
- Flinders University
- University of South Australia
- The University of Adelaide
- Monash University
- The University of Melbourne
- The Australian National University

#### NEW ZEALAND

- National Institute of Water and Atmospheric Research
- University of Auckland
- University of Canterbury

### Europe

#### ARMENIA

- Yerevan Physics Institute

#### AUSTRIA

- Johannes Kepler University Linz
- The Medical University of Vienna

#### BELGIUM

- Institut Supérieur de Traducteurs et Interprètes

#### BULGARIA

- Sofia University
- Bulgarian Academy of Sciences, Space Research Institute, Space Astronomy Division
- Bulgarian Academy of Sciences, Institute of Electronics
- Bulgarian Academy of Sciences, Institute of Mathematics

#### DENMARK

- University of Copenhagen

#### FINLAND

- Finnish Meteorological Institute

#### FRANCE

- Université Stendhal (Université de Grenoble 3)
- Université de Paris-Sorbonne, Paris IV
- Ecole Nationale des Ponts et Chaussées (ENPC)
- Université Jean Moulin-Lyon 3
- Ecole Normale Supérieure, Lettres et Sciences Humaines
- Université Paris 7 - Denis-Diderot
- Université Joseph Fourier (Université de Grenoble 1)
- Université Pierre-Mendès-France (Université de Grenoble 2)
- Grenoble Institute of Technology (Université de Grenoble 4)
- Université de Strasbourg
- Université Panthéon Assas, Paris II
- Université Paul Cézanne, Aix-Marseille III

- Université Paris-Est
- Ecole Normale Supérieure de LYON
- Université de Provence, Aix-Marseille I

#### GERMANY

- Albert-Ludwigs-Universität Freiburg
- Technische Universität Carolo-Wilhelmina zu Braunschweig
- Universität zu Köln
- Technische Universität München
- Johannes Gutenberg-Universität Mainz
- Deutsches Zentrum für Luft- und Raumfahrt
- Universität Ulm
- Technische Universität Chemnitz
- RWTH Aachen
- Universität Regensburg
- WWU Münster
- Ruhr-Universität Bochum
- Technische Universität Kaiserslautern
- Freie Universität Berlin
- Wissenschaftszentrum Ost- und Südosteuropa Regensburg

#### HUNGARY

- Hungarian Academy of Sciences, Institute for Legal Studies

#### ITALY

- National Institute of Nuclear Physics (INFN)
- University of Catania

#### KAZAKHSTAN

- Kazakh Humanitarian Law University
- Legislation Research Institute, Republic of Kazakhstan

#### LATVIA

- Latvian State University

#### NETHERLANDS

- Wageningen University
- Free University of Amsterdam

## NORWAY

- University of Oslo
- University of Tromsø

## POLAND

- Medical University of Gdańsk
- Warsaw University of Technology

## RUSSIA

- Institute of Theoretical and Experimental Physics
- Ministry of Health of Russia, Institute of Biomedical Problems
- Moscow State University
- Russian Academy of Sciences, Siberian Division, Institute of Cytology and Genetics
- Moscow State Engineering and Physics Institute (Technical University-MEPH)
- Russian Academy of Sciences, Institute of Computer Aided Design
- Russian Academy of Sciences, Far Eastern Branch, Institute of Cosmophysical Research and Radiowave Propagation (IKIR)
- Russian Academy of Sciences, Siberian Division, Institute of Solar-Terrestrial Physics (ISTP)

## SWEDEN

- Swedish Institute of Space Physics
- University of Lund

## SWITZERLAND

- University of Bern

## U.K.

- The University of Sheffield
- The University of Warwick
- The University of Nottingham
- University of East Anglia
- The University of Manchester
- The University of Bristol
- University of Leicester
- The University of Oxford
- University of London, School of Oriental and African Studies (SOAS)

## UKRAINE

- Ukrainian SSR Academy of Sciences, Institute of Theoretical Physics

## UZBEKISTAN

- Samarkand State University
- University of World Economy and Diplomacy
- Tashkent State Institute of Law

## North America

### CANADA

- Carleton University
- University of Toronto
- University of Victoria
- York University

### USA

- Oberlin College
- University of Michigan
- University of California, Los Angeles
- University of Houston
- North Carolina State University
- Harvard-Yenching Institute
- University of Cincinnati
- University of California, Berkeley
- University of North Carolina, Chapel Hill
- University of Alaska Fairbanks
- National Oceanic and Atmospheric Administration
- Massachusetts Institute of Technology, Haystack Observatory
- Harvard Medical School
- Tulane University
- University of Pennsylvania
- University of California, San Diego
- Colorado School of Mines
- St. Olaf College
- Southern Illinois University, Carbondale
- University of Illinois at Urbana-Champaign
- University of Kentucky
- New York University

- Duke University
- Johns Hopkins University
- University of Wisconsin Law School
- University of Maryland
- University of Washington
- Northwestern University
- The University of Texas
- University of Chicago
- Green Mountain College
- Michigan State University
- University of Minnesota
- UC Santa Barbara

## Latin America

### ARGENTINA

- National University of Rosario
- Luis F. Leloir, Campomar Foundation, the Research Institute of Biochemistry

### BOLIVIA

- Universidad Mayor de San Andres

### BRAZIL

- Ministry of Science and Technology, National Institute for Space Research
- Fundacao Joaquim Nabuco
- Universidade de Brasilia
- Universidade de São Paulo

### GUATEMALA

- Del Valle de Guatemala University

### MEXICO

- Universidad de Sonora

## Africa

### EGYPT

- Tanta University

### KENYA

- University of Nairobi
- African Institute for Capacity Development (AICAD)

### SOUTH AFRICA

- South African Astronomical Observatory

## Others (International Organization)

- Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA)
- European Organization for Nuclear Research

## Agreements for Industry-University Collaboration

### Europe

#### U.K.

- The University of Warwick

### North America

#### USA

- North Carolina State University
- University of North Carolina, Chapel Hill

## Agreements for International Joint Research

### Asia

#### KOREA

- Sunkyunwan University

### Pacific

#### AUSTRALIA

- The University of New South Wales

### Europe

#### GERMANY

- Ruhr-Universität Bochum

### North America

#### USA

- The University of Texas at Dallas

### Others

- The Ministry of Science and Technology of Brazil
- The National Institute of Space Research (INPE)
- The Japan Aerospace Exploration Agency (JAXA), Institute of Space and Astronautical Science (ISAS)

## International Networks

- Academic Consortium 21 (AC21)
- International Forum of Public Universities (IFPU)
- Collège doctoral franco-japonais
- University Mobility in Asia and the Pacific (UMAP)
- OpenCourseWare Consortium
- The G8 University Summit
- Canada-Japan Strategic Student Exchange Program



## Academic Charter of Nagoya University

Appreciating the intrinsic role and historical and social mission of universities, Nagoya University, as a seat of learning, hereby defines its fundamental principles of scholarly activity.

Nagoya University maintains a free and vibrant academic culture with the mission of contributing to the well-being and happiness of humankind through research and education in all aspects of human beings, society, and nature. In particular, it aspires to foster the harmonious development of human nature and science, and to conduct highly advanced research and education that overlook the broad sweep of humanities, social and natural sciences. Towards this goal, Nagoya University endeavours to implement a variety of measures based on the fundamental objectives and policies outlined below, and to unremittingly carry out its responsibilities as a pivotal university.



### 1 | Fundamental Objectives: Research and Education

- 1** Nagoya University, through creative research activity, shall pursue the truth and produce results of scholastic distinction on the international stage.
- 2** Nagoya University, through an education that values initiative, shall cultivate courageous intellectuals endowed with powers of rational thought and creativity.

### 2 | Fundamental Objectives: Contribution to Society

- 1** Nagoya University, in spearheading scientific research, and through the cultivation of human resources capable of exercising leadership both in the domestic and international arenas, shall contribute to the welfare of humanity and the development of culture, as well as to global industry.
- 2** Nagoya University shall put to good use the special characteristics of the local community and, through multi-faceted research activities, contribute to the development of the region.
- 3** Nagoya University shall promote international academic co-operation and the education of foreign students, and contribute to international exchange, especially with Asian nations.

### 3 | Fundamental Policies: Research and Education System

- 1** Nagoya University shall study the various phenomena of the humanities, society and nature from an all-inclusive viewpoint, respond to contemporary issues, and adjust and enrich its education system to generate a new sense of values and body of knowledge founded on humanity.
- 2** Nagoya University shall provide for an education system that rightly inherits and develops intellectual resources cultivated in the world's intellectual traditions, and promote educational activity that is both advanced and innovative.
- 3** Nagoya University, through the active dispatch of information and exchange of personnel, and interinstitutional co-operation in Japan and abroad, shall shape the international foundation of academic culture.

### 4 | Fundamental Policies: University Administration

- 1** Nagoya University shall at all times support scientific enquiry based on the autonomy and initiative of its members, and guarantee freedom of academic research.
- 2** Nagoya University shall require its members to participate in the drafting and implementation of both ideals and objectives related to research and education, as well as administrative principles.
- 3** Nagoya University, in addition to promoting autonomous assessment and evaluation from its members with regard to research, education and administrative activity, shall actively seek critical appraisal from external authorities, and aspire to be an accessible university.

\*This is a provisional translation and subject to change.

## Nagoya University

<b>Headquarters</b>	Administration Bureau Administrative Support Organizations
<b>Audit Office</b>	
<b>Institute of Liberal Arts and Sciences</b>	
<b>Institute for Advanced Research</b>	

<b>Schools</b>	School of Letters		
	School of Education	Lower Secondary School Upper Secondary School	
	School of Law		
	School of Economics		
	School of Informatics and Sciences		
	School of Science		
	School of Medicine	University Hospital	Daiko Medical Center
	School of Engineering		
	School of Agricultural Sciences		

### Research Center of Health, Physical Fitness and Sports

<b>Graduate Schools</b>	Graduate School of Letters	Research Center for Modern and Contemporary Japanese Culture
	Graduate School of Education and Human Development	
	Graduate School of Law	Japan Legal Information Institute
	Graduate School of Economics	Economic Research Center
	Graduate School of Science	Sugashima Marine Biological Laboratory
		Nagoya University Southern Observatories
		Structural Biology Research Center
		Tau-Lepton Physics Research Center
		Center for Research of Laboratory Animals and Medical Research Engineering
	Graduate School of Medicine	Center for Neural Disease and Cancer
Plasma Nanotechnology Research Center (PLANT)		
Graduate School of Engineering	Research Center for Materials Backcasting Technology	
	Center for Computational Science	
	Composite Engineering Research Center	
	Center for Micro-Nano Mechatronics	
	Field Science Center	
Graduate School of Bioagricultural Sciences	Avian Bioscience Research Center	
Graduate School of International Development		
Graduate School of Mathematics		
Graduate School of Languages and Cultures		
Graduate School of Environmental Studies	Research Center for Seismology, Volcanology and Disaster Mitigation	
	International Research Center for Sustainable Transport and Cities	
Graduate School of Information Science	Center for Embedded Computing Systems	

<b>Research Institutes</b>	Research Institute of Environmental Medicine	Futuristic Environmental Simulation Center
	Solar-Terrestrial Environment Laboratory	Geospace Research Center
	EcoTopia Science Institute	Center for Interdisciplinary Studies on Resource Recovery and Refinery in Asia

<b>University Library</b>	Medical Library
	Nagoya University Library Studies

<b>Inter-University Service Facilities</b>	Hydrospheric Atmospheric Research Center
	Information Technology Center

<b>Research Centers, etc.</b>	Radioisotope Research Center
	Center for Gene Research
	Education Center for International Students
	Research Center for Materials Science
	Center for the Studies of Higher Education
	International Cooperation Center for Agricultural Education
	Center for Chronological Research
	Nagoya University Museum
	Center for Developmental Clinical Psychology and Psychiatry
	Center for Asian Legal Exchange
	Bioscience and Biotechnology Center
	Synchrotron Radiation Research Center
	Nagoya University Archives
	Center for Student Counseling
International Student Advising Office	

### Technical Center

# Organizational Structure



# Staff

As of May 1, 2009

Members of the Board of Trustees		
President		1
Trustees		5
Auditors		2
Staff (Full-time)		
Faculty	Professors	649 ( 18)*1
	Associate Professors	507 ( 36)
	Associate Professors / Lecturers	118 ( 47)
	Assistant Professors	432 (120)
	Research Associates	7 ( 1)
	Researchers	0 (161)
	School Teachers at Affiliated Schools	38
Administrative / Technical Staff*2	1,453 (472)	
<b>Total</b>		<b>3,204 (855)</b>

\*1 Data in parenthesis show the number of staff under limited-time contracts.  
\*2 Data include medical staff of the University Hospital.



# Student Enrollment

As of May 1, 2009

Name of Schools / Graduate Schools	Undergraduate Courses		Graduate Courses		Total
	Degree seeking	Non-degree seeking	Degree seeking	Non-degree seeking	
Letters	603	55	319	13	990
Education	330	39	247	32	648
Law	685	18	393	124	1,220
Economics	910	17	132	8	1,067
Informatics and Sciences	355	13	-	-	368
Science	1,186	13	527	12	1,738
Medicine	1,516	42	899	51	2,508
Engineering	3,307	41	1,565	33	4,946
Agricultural Sciences	748	4	386	19	1,157
International Development		-	285	32	317
Mathematics		-	162	3	165
Languages and Cultures		-	229	38	267
Environmental Studies		-	527	26	553
Information Science		-	374	9	383
Human Informatics		-	4	-	4
Others		64	-	-	64
<b>Total</b>	<b>9,640</b>	<b>306</b>	<b>6,049</b>	<b>400</b>	<b>16,395</b>



# Campus Map

## Higashiyama Campus



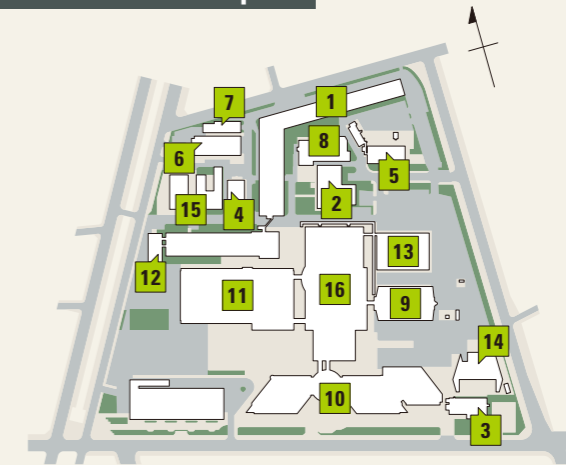
- 1 Administration Bureau Building
- 2 Toyoda Auditorium
- 3 University Library (Central Library)
- 4 Information Plaza
- 5 Graduate School of Letters  
School of Letters
- 6 Graduate School of Education and Human Development  
School of Education  
– Center for Developmental Clinical Psychology and Psychiatry
- 7 Graduate School of Law  
School of Law
- 8 Graduate School of Economics  
School of Economics
- 9 Graduate School of Science  
School of Science
- 10 Graduate School of Mathematics
- 11 Graduate School of Engineering  
School of Engineering
- 12 Venture Business Laboratory
- 13 Integrated Building  
– International Student Advising Office  
– Creation Plaza
- 14 Graduate School of Bioagricultural Sciences  
School of Agricultural Sciences
- 15 School of Informatics and Sciences  
Central Building for Liberal Arts and Sciences
- 16 Graduate School of Information Science
- 17 Building A for Liberal Arts and Sciences
- 18 Research Center of Health,  
Physical Fitness and Sports
- 19 Graduate School of International Development
- 20 Graduate School of Languages and Cultures
- 21 Environmental Studies Hall  
– Graduate School of Environmental Studies  
– Disaster Management Office
- 22 Research Institute of Environmental Medicine
- 23 Cosmic Ray Observatory (STEL)
- 24 Research Facility of Advanced Science and Technology
- 25 Research Facility for Advanced Energy Conversion, West Building
- 26 Facility of Incubation
- 27 Hydrospheric Atmospheric Research Center
- 28 Information Technology Center
- 29 Radioisotope Research Center
- 30 Education Center for International Students  
Center for Asian Legal Exchange
- 31 Center for Chronological Research  
Nagoya University Museum
- 32 Bioscience and Biotechnology Center
- 33 Inter-Departmental Education and Research Facilities  
– EcoTopia Science Institute  
– International Cooperation Center for Agricultural Education  
– Solar-Terrestrial Environment Laboratory (STEL)



- 34 Research Laboratory Building
- 35 Integrated Research Building  
(Arts and Humanities)  
– Center for the Studies of Higher Education
- 36 Institute for Advanced Research Hall
- 37 Noyori Materials Science Laboratory  
– Research Center for Materials Science
- 38 Noyori Conference Hall
- 39 Akasaki Institute  
– Akasaki Research Center  
– Headquarters for Industry,  
Academia and Government Cooperation
- 40 Student Hall
- 41 North Cafeteria and Shop
- 42 South Cafeteria and Shop
- 43 Information

- Cafeteria
- Convenience Store
- Post Office
- Bus Stop
- Subway

## Tsurumai Campus



- 1 Building for Medical Research
- 2 Medical Library
- 3 Kakuyu Kaikan (Alumni Hall)
- 4 Welfare Facilities
- 5 Radioisotope Laboratory
- 6 Annex to Medical Research
- 7 Mortuary
- 8 Center for Research of Laboratory Animals  
and Medical Research Engineering
- 9 Medical Science Research Building 1
- 10 Ward
- 11 Outpatients' Clinic
- 12 Specialized Clinical Division
- 13 Medical Science Research Building 2
- 14 Energy Center
- 15 Sanitary Department A  
Sanitary Department B
- 16 New Clinical Laboratory and Examination Center

## Daiko Campus



- 1 School of Health Sciences (South Building)  
Daiko Medical Center
- 2 School of Health Sciences (Main Building)
- 3 Gymnasium
- 4 Annex to Radioisotope Laboratory
- 5 Energy Center
- 6 Student Hall
- 7 Garage
- 8 Annex to School of Health Sciences
- 9 Kyudo (Japanese Archery) Hall
- 10 School of Health Sciences (East Building)
- 11 Researchers Village Daiko

# Access



### To Higashiyama Campus

From Nagoya Station: Take the Subway Higashiyama Line to Motoyama Sta. (15 minutes), then transfer to the Subway Meijo Line to Nagoya Daigaku Sta. Higashiyama Campus is just off the subway exit.

From Centrair (Central Japan International Airport): Take the Meitetsu Line to Kanayama Sta. (30 min.), then transfer to the Subway Meijo Line to Nagoya Daigaku Sta. (21 min.).

### To Tsurumai Campus

From Nagoya Station: Take the JR Chuo Line (bound for Tajimi) to Tsurumai Sta. (6 min.), then walk 5 min.

### To Daiko Campus

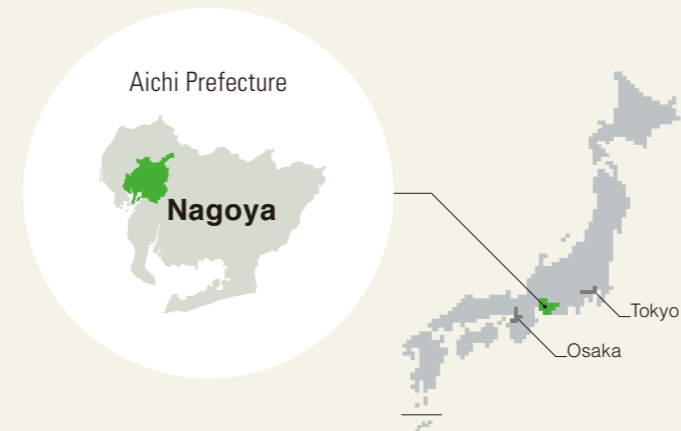
From Nagoya Station: Take the Subway Higashiyama Line to Sakae Sta. (5 min.), transfer to the Subway Meijo Line to Nagoya Dome-mae Yada Sta. (12 min.), then walk 5 min.

### To Nagoya Station

From Centrair (Central Japan International Airport): Take the Meitetsu Line (30 min.) or the airport bus (60 min.).

From Tokyo Station: Take the Shinkansen (103 min.).  
From Shin-Osaka Station: Take the Shinkansen (52 min.).

# The City of Nagoya



Located in the heart of Japan, the Chubu region has played a central role in Japan's history and has long enjoyed a flourishing culture and economy. The area is well known as the home of Oda Nobunaga, Toyotomi Hideyoshi and Tokugawa Ieyasu, the three leaders who unified Japan over 400 years ago, bringing an end to the "Period of Warring States." Nagoya Castle, originally built by Tokugawa Ieyasu and famous for the pair of golden dolphins on top of its donjon, serves as the region's landmark.

Today, this vibrant metropolis occupies an important place in Japan's political and economic spheres. With a population of 2.2 million, Nagoya is the nerve center of the Chubu Industrial Zone, a merger of both traditional and modern industries, most notably the automotive industry. Nagoya offers a variety of urban conveniences, with shops, restaurants and leisure activities that cater to any taste, making it an exciting place to live, work and study.



JR Central Towers



Nagoya Castle



Nagoya Noh Theater



Arimatsu Shibori Matsuri (festival)



Nagoya City Archives



The Golden Dolphin



Nagoya Congress Center



Nagoya Port Triton



Nagoya City Art Museum



OASIS 21