# Welcome to the Kashiwa Campus of The University of Tokyo



# Adventures in Knowledge

Kashiwa campus is the newest of the three main campuses of The University of Tokyo in addition to campuses at Hongo and Komaba, and was established with the vision of building a new community with a strong interdisciplinary and international character that can respond to the dynamic scientific and educational needs of the 21st Century.

Hongo campus, the nucleus of academic activities at The University of Tokyo since its founding in 1877, and Komaba campus, focusing on undergraduate studies and building interdisciplinary links between established fields of study for over 60 years, have longstanding academic traditions. The Kashiwa campus recently joined this family and brings with it a fundamental reorganization of the structure of traditional academic disciplines, rethinking the framework of how knowledge is created and organized. Under the slogan of "adventures in knowledge", the Kashiwa campus has started a range of new initiatives.

The Graduate School of Frontier Sciences (GSFS) consists of three divisions each with relevant departments: Division of Transdisciplinary Sciences, Division of Biosciences, and Division of Environmental Studies, and one independent unit: Department of Computational Biology. GSFS aims to create new frontiers of academic fields. The Institute for Solid State Physics (ISSP) is exploring a wide variety of phenomena exhibited by various materials from the viewpoint of basic science using state-of-art experimental facilities and techniques. Materials under study include those forming the basis of today's high-tech society and its future development.

The Institute for Cosmic Ray Research (ICRR) is pursuing the origins of the universe and matter through research on cosmic rays. The Atmosphere and Ocean Research Institute not only promotes basic research on the ocean and atmosphere, but also contributes to society through deepening ocean and climate science. The Todai Institutes for Advanced Study, Institute for the Physics and Mathematics of the Universe (IPMU) pursues the deep mysteries of the universe through the integration of Physics and Mathematics. Other departments include RACE (Research into Artifacts, Center for Engineering), the Center for Spatial Information Science, the Kashiwa Branch of the Environmental Science Center, the Information Technology Center, the Institute of Gerontology and the Kashiwa Library. As the names suggest, these facilities bring together people from a wide variety of research fields. As an important part of facilitating communication between research fields, the Kashiwa campus also has a strong international character, promoting international contacts and the exchange of ideas from around the world. Through the facilities that exist now or will be built in the near future, the Kashiwa campus has excellent coverage of many of the new fields of science that have growing importance in shaping our lives in the 21st Century. Abandoning the constraints of traditional ways of organizing science, Kashiwa campus has quickly responded to the continuously evolving frontiers of science in an increasingly global and dynamic society by building new interdisciplinary research facilities and seeding new academic fields. These achievements will make the "adventures in knowledge" in Kashiwa possible.

## Growth of the Kashiwa Campus

In 1998, The University of Tokyo established a new campus about 30 km northeast of Tokyo located in Chiba prefecture, in the northern part of Kashiwa city, adjoining Kashiwanoha Park, and the University has been consolidating certain academic and research units since then. At the beginning of 2011, the total number of faculty, graduate students, and researchers at the Kashiwa campus reached exceeded 3,000.

| Relocated in 2000 | Institute for Cosmic Ray Research   |   | (from Tanashi campus)  |  |
|-------------------|---|---|------------------------|--|
|                   | Institute for Solid State Physics   |   | (from Roppongi campus) |  |
| 2001              | Division of Integrated Biosciences, Graduate School                                   | ool of Frontier Sciences                  | (from Hongo campus)    |  |
| 2003              | Division of Transdisciplinary Sciences, Graduate School of Frontier Sciences          |   | (from Hongo campus)    |  |
| 2005              | Research into Artifacts, Center for Engineering                                       |   | (from Komaba campus)   |  |
|                   | Center for Spatial Information Science  | (from Komaba campus)                      |                        |  |
|                   | High Temperature Plasma Center  | (from Hongo campus)                       |                        |  |
|                   | [incorporated into Graduate School of Frontier  | Sciences in 2008]                         |                        |  |
|                   | Center for Climate System Research  | (from Komaba campus)                      |                        |  |
|                   | [Consolidation of the Ocean Research Institute  |   |                        |  |
|                   | Research into the Atmosphere and Ocean Research Institute (AORI) in 2010]             |   |                        |  |
| 2006              | Division of Environmental Studies, Graduate School of Frontier Sciences               |   | (from Hongo campus)    |  |
| 2007              | Institute for the Physics and Mathematics of the I                                    | Jniverse (IPMU)                           |                        |  |
|                   | [established in 2007, reorganized into Todai Ins                                      | titutes for Advanced Study, IPMU in 2011] |                        |  |
| 2010              | Ocean Research Institute  |   | (from Nakano campus)   |  |
|                   | [Consolidation of the Ocean Research Institute and Center for Climate System Research |   |                        |  |
|                   | into the Atmosphere and Ocean Research Instit   | :ute in 2010]                             |                        |  |
| 2011              | Information Technology Center   |   | (from Hongo campus)    |  |
|                   | Institute of Gerontology  |   | (from Hongo campus)    |  |
|                   | Support facilities in Kashiwa   |   |                        |  |
|                   | Health Services Center Kashiwa Branch   | 2000                                      |                        |  |
|                   | Environmental Science Center, Kashiwa Branch  | 2003                                      |                        |  |
|                   | Kashiwa Library   | 2004                                      |                        |  |
|                   |   |   |                        |  |

#### Outline of The University of Tokyo (Todai)

| Established:                     | 1877 (D   | epartments of Law, Science, Lite  | erature, and Medicine)        |
|----------------------------------|-----------|-----------------------------------|-------------------------------|
| President:                       | Junichi H | łamada                            |                               |
| Teaching/research organizations: | 10 facult | ties, 15 graduate schools, 11 ins | titutes, 15 shared facilities |
| Campuses:                        | Hongo     | (Hongo, Bunkyo-ku, Tokyo)         | 559,176m <sup>2</sup>         |
|                                  | Komaba    | (Komaba, Meguro-ku, Tokyo)        | 352,184m <sup>2</sup>         |
|                                  | Kashiwa   | (Kashiwanoha, Kashiwa, Chiba)     | 320,452m <sup>2</sup>         |

#### Kashiwa Campus Management

The Kashiwa Campus Joint Academic Management Council was established as an organization for discussing and deciding matters regarding academic management common to all Departments on the Kashiwa Campus.

#### Its role is to deal with

- (1) Matters referred to the Council by departments belonging to the Kashiwa Campus
- (2) Other matters regarding academic management common to all Departments

Number of faculty and staff Number of graduate students and research students Master Course Doctoral Course Others Total Faculty Technical personnel Administrative staff Total Classification Fixed-Full-Fixed-Full-Fixed-Full-Fixed-Part-Full-Part-Part-Part-GSFS GSFS GSFS GSFS time time time term time time term time time time term term Graduate School of Frontier Sciences 1,475 Institute for Cosmic Ray Research Institute for Solid State Physics Atmosphere and Ocean Research Institute Research into Artifacts, Center for Engineering Center for Spatial Information Science Environmental Science Center, Kashiwa Branch Information Technology Center Institute for the Physics and Mathematics of the Universe Institute of Gerontology Ocean Alliance **Future Center Initiative** Health Services Center, Kashiwa Branch International Center, Kashiwa Office Kashiwa Library Research Center Support Office / Kashiwa Kashiwa Administration Department Center 492 1,335 1,115 Total 389 258 1.775

#### The people that make up the Kashiwa campus

Kashiwa Campus Joint Academic Management Council



Kashiwa Campus Liaison Office

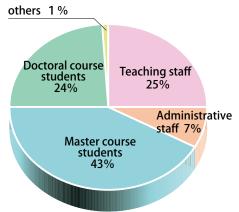
Kashiwa Campus Health and Safety Office

\*Number of faculty and students are the numbers as of May 1st, 2011.



others 4% Doctoral course students 16% Master course students 18% Undergradute students 36%

#### People who make up Kashima Campus(2,603)



\*All numbers as of May 1, 2011. \*Fixed and part-time staff not included. \*Others are specialists and researchers.

## Facilities at the Kashiwa campus

#### Graduate School of Frontier Sciences (GSFS)

 $\bigcirc$  Division of Transdisciplinary Sciences

- Department of Advanced Materials Science
- Department of Advanced Energy
- Department of Complexity Science and Engineering
- Department of Frontier Informatics
  - [moved to Graduate School of Engineering]
- $\bigcirc$  Division of Biosciences
  - Department of Integrated Biosciences
  - Department of Medical Genome Sciences

#### $\bigcirc$ Division of Environmental Studies

- Department of Natural Environmental Studies
- Department of Ocean Technology, Policy, and Environment
- Department of Environment Systems
- Department of Human and Engineered Environmental Studies
- Department of Socio-Cultural Environmental Studies
- Department of International Studies
- Graduate Program in Sustainability Science
- Department of Computational Biology
- Research Center for Total Life Health and Sports Sciences (Kashiwa II campus)
- $\bigcirc$  Center for Omics and Bioinformatics
- O Bioimaging Center
- $\bigcirc$  Functional Proteomics Center

#### Institute for Cosmic Ray Research (ICRR)

#### **Research Divisions**

Neutrino and Astroparticle Division

- High Energy Cosmic Ray Division
- Astrophysics and Gravity Division

#### **Research Facilities**

- 🔘 Kamioka Observatory (Kamioka-cho, Hida City, Gifu)
- $\bigcirc$  Research Center for Cosmic Neutrinos
- 🔿 Norikura Observatory (Takayama City, Gifu)
- Akeno Observatory (Hokuto City, Yamanashi)



Transdisciplinary Sciences, GSFS



Biosciences, GSFS

#### Institute for Solid State Physics (ISSP) Research Divisions

Division of New Materials Science

- Division of Condensed Matter Theory
- Division of Nanoscale Science
- Division of Physics in Extreme Conditions
- Division of Advanced Spectroscopy

#### **Research Facilities**

- Synchrotron Radiation Laboratory
- O Materials Design and Characterization Laboratory
- Neutron Science Laboratory
- International MegaGauss Science Laboratory
- $\bigcirc$  Center of Computational Materials Science

### Atmosphere and Ocean Research Institute (AORI)

#### **Research Divisions**

Division of Climate System Research

- Department of Climate System Modeling
- Department of Climate Variability Research

#### Division of Ocean-Earth System Science

- Department of Physical Oceanography
- Department of Chemical Oceanography
- Department of Ocean Floor Geoscience

Division of Marine Life Science

- Department of Marine Ecosystem Dynamics
- Department of Marine Bioscience
- Department of Living Marine Resources

Department of Collaborative Research

#### **Research Centers**

- $\bigcirc$  International Coastal Research Center
- $\bigcirc$  Center for International Collaboration
- $\bigcirc$  Center for Earth Surface System Dynamics



Environmental Studies, GSFS



Institute for Cosmic Ray Research (ICRR)

#### Research into Artifacts, Center for Engineering

Division of Life Cycle Engineering Division of Service Engineering Division of Digital Value Engineering Division of Co-Creation Engineering

#### Center for Spatial Information Science

Division of Spatial Information Analysis Division of Spatial Information Engineering Division of Spatial Socio-Economic Research Division of Joint Usage and Research

#### Kashiwa Branch of the Environmental Science Center

Kashiwa Branch of the Environmental Science Center performs both research and education on environmental conservation and safety management. It also supervises management, treatment, and disposal of hazardous wastes generated on Kashiwa Campus.

#### Information Technology Center

#### (Joint Usage/Research Center, MEXT)

The Information Technology Center (ITC) is one of the largest supercomputer centers in Japan. ITC operates two supercomputers with more than 1,500 users, where 50% of them are outside of the university. ITC's main mission is providing services to support these users. Research and education related to large-scale scientific simulations, and system software on supercomputers are conducted.

#### Institute for the Physics and Mathematics of the Universe (IPMU), Todai Institutes for Advanced Study (TODIAS)

IPMU, selected by MEXT for the World Premier International Research Center Initiative, is a multi-disciplinary research institute aiming at studying dark energy, dark matter, and unified theories (such as superstring theories and quantum gravity). The mission of IPMU is to understand the origin and evolution of the universe through synergetic efforts in mathematics, physics, and astronomy.

#### Institute of Gerontology (IOG)

The Institute of Gerontology is a multi-disciplinary research institute which aims to first collect and organize the various knowledge and technology regarding individual as well as aging population into the science of "Gerontology," and then further this science. The mission of IOG is to confront the various challenges facing an aging society from a multi-disciplinary perspective and offer new, viable solutions thereby effectively using what is learned, adding value, and returning it back into society.



Kashiwa Research Complex



Institute for Solid State Physics (ISSP



Atmosphere and Ocean Research Institute (AORI)

#### International Center Kashiwa Office, Division of International Affairs

The International Center Kashiwa Office provides a variety of services to support internationalization of Kashiwa Campus such as providing information on visa procedures and life in Japan, and arranging language classes and cultural exchange events.

#### Division for Health Service Promotion (Kashiwa Health Service Center)

The Kashiwa Health Service Center provides health management services and medical care for the students, faculty, and researchers at the Kashiwa campus.

#### Kashiwa Library

Kashiwa Library is the central library on the Kashiwa Campus, one integral part of the tripolar structure of the University of Tokyo. It assists the realization of the "Multidisciplinary Integration",the fundamental principle of the Kashiwa Campus, providing access to and help in finding by academic information. And also, it aims to be a research center and a place to advance the multidisciplinary integration, the intellectual creation, and the communicating of creative information.



University of Tokyo KashiwaII Campus



Kashiwa Library



Institute for the Physics and Mathematics of the Universe (IPMU), Todai Institutes for Advanced Study (TODIAS)

Kashiwa Research Complex2



# Community partnerships, industry-academia cooperation, and international activities at the Kashiwa campus

The spirit of transdisciplinarity is the driving force in new industry creation and urban revitalization based on the collaboration of Chiba Prefecture, Kashiwa City, Nagareyama City, and The University of Tokyo that has brought an academic center, Kashiwa campus, back to the regional community. The University actively promotes the transfer of technology to industry, and is making great strides in internationalizing the campus.

#### Open Campus

An open campus program is held on the last Friday and Saturday of October every year. Some 5,000 people participate in open campus events that include visiting research laboratories and touring large-scale experiment facilities.

#### Kashiwa Library Club

Kashiwa Library Club is an institution for assisting the Kashiwa Library, The University of Tokyo, and also for exchange between the members and additionally between the members and the staffs. Excepting senior high school or yanger students, anyone who agrees with the purpose of the club can join the club. The club members may borrow open-stack books, and use the facilities on the 1st floor of the library, and will also receive announcements of screen plays or concerts are mailed.

#### Urban Design Center Kashiwa-no-ha (UDCK)

Urban Design Center Kashiwa-no-ha was established as a joint research center of The University of Tokyo and Chiba University, Kashiwa City, Mitsui Fudosan Co., Ltd. The Kashiwa Chamber of Commerce and Industry, and regional community (Tanaka regional Furusato committee), Metropolitan Intercity Railway Company. It is located in front of Kashiwanoha Campus Station, and operates pilot programs and the seminars based on research achievements and ideas from the universities.

#### Public Lectures

With the cooperation of Kashiwa City and the Kashiwa Chamber of Commerce and Industry, The University holds lectures open to the public, inviting Nobel Prize winners and other notable speakers.



Open Campus



Open Campus



Urban Design Center Kashiwa-no-ha (UDCK)



Kashiwa Library

#### Science Partnership Project (SPP)

The purpose of this project is to provide greater opportunities for improving the intellectual curiosity of high school students; and enhancing the level of interest in science, technology, physics, and mathematics through partnerships between universities and high schools. The Japan Science and Technology Agency selected The University of Tokyo to undertake the project. With the cooperation of the Chiba Prefecture Board of Education, the teaching faculty of the Kashiwa campus provide a two-day course of hands-on science learning during the summer holidays for high school students from Chiba Prefecture who wish to attend, with lectures on leading edge scientific research.

#### University Consortium Tokatsu

University Consortium Tokatsu was founded to promote further development of the Kashiwanoha area in collaboration with Kashiwa and four other nearby cities and some eleven other universities. It consists of three actively operating sections: "Internationalization", "Teganuma Lake", and "Learning and Practice". The University of Tokyo participates as member.

#### Participation in the Kashiwa Industry Fair

Every July The University takes part in the Kashiwa Industry Fair which is organized by the Kashiwa Chamber of Commerce and is held to contribute to the promotion of Kashiwa's industry by gathering the best products made in the area under one roof, promoting them through exhibitions, and selling to local people. The University of Tokyo provides an exhibit focusing on research results.

#### Cooperation with the Tokatsu Techno Plaza

Tokatsu Techno Plaza, established by Chiba prefecture, is an organization that provides support for corporate research and development in the prefecture. The University of Tokyo participates in the following projects:

#### University Research Exchange Salon

At this workshop, researchers from the University among others provide lectures and consulting to people from the corporate and government sectors regarding new technology and new product development. The University of Tokyo sends a lecturer and consultant to this workshop.

#### Summer Science Class

This class educates children on different views of science, and teaches the importance and joy of making things with their hands. The University of Tokyo provides the instructor for this class.

#### Cooperation with the Todai Kashiwa Venture Plaza

The Organization for Small and Medium Enterprises and Regional Innovation Japan established the Todai Kashiwa Venture Plaza to provide support to small and medium venture firms that aim to research and develop new products and new technology or to enter new technology fields based on university discoveries and inventions. The University of Tokyo cooperates with more than half of the businesses involved.

#### Sawayaka Chiba Kenmin Plaza

Sawayaka Chiba Kenmin Plaza is the prefectural complex facility with a lifelong learning center, and art and culture center functions. The University of Tokyo sends a lecturer for their Kashiwanoha Academia Lecture, and holds lectures and the tours about advanced technologies and environment concerns.

#### Cooperation with the Japan Atomic Energy Agency

A Researcher-in-Residence from The Center for Computational Science & e-Systems at the Japan Atomic Energy Agency is always on the Kashiwa Campus, and promotes joint research on high technology computational science toward complexity phenomena of materials, structures, and fluids. The University also cooperates in growing human resources in supercomputing and its application fields.

#### International Exchange Activities

The Kashiwa Campus is regarded as the international base at The University of Tokyo. The International Center Kashiwa Office provides assistance to students and researchers from abroad concerning visa procedures, housing information, and a variety of other high-quality services acting in addition to acting as a contact window to regional corporations. In addition, the International Lodge (Kashiwa Lodge) recently opened on Kashiwa Campus II in 2010. The University is planning the development of an "international village for all disciplines" where foreign students and researchers from all over the world can come together to exchange ideas and learn in an environment where learning and living in the same place complement each other.



SPP "Microcomputer Control of Mechanical System"

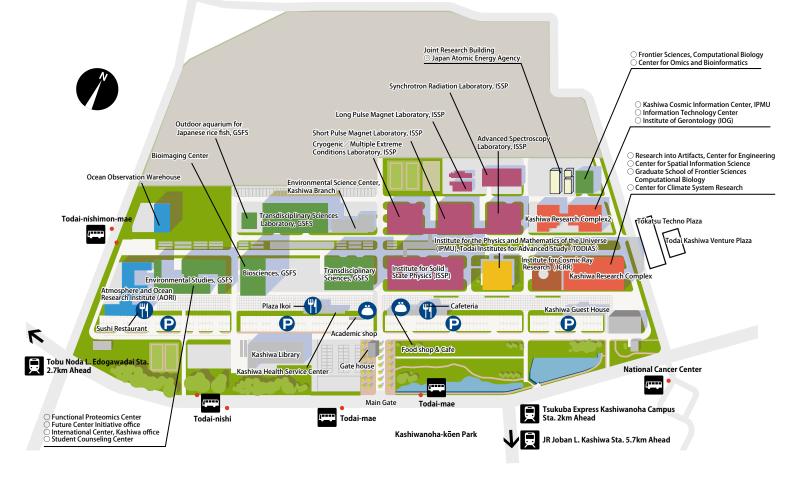


Joint Research on High Technology Computational Science with the Japan Atomic Energy Agency



Kabuki Event for International Students and Researchers (National Theater)

### Map of Kashiwa Campus, The University of Tokyo



#### **Getting to the Kashiwa Campus**

To Tsukuba To Kasukabe ○ Kashiwanoha Campus Station West Exit (Tsukuba Express Line) <Tobu Bus> Tobu Noda L Kashiwa IC 西柏03 bus for Kashiwanoha Campus Station (Customs Training Institute loop line or Edogawadai Sta. Kashiwanoha Park Central loop line) → get off at Todai-mae, Todai-nishi stop. 西柏04 Bus for Edogawadai Station East Exit (via National Cancer Center) → get off at Todai-mae, Todai-nishi stop. 西柏10 Bus for Edogawadai Station East Exit (via Midoridai-Chuo) → get off at Todai-mae, Todai-nishi stop. Kashiwa campus To Tokyo <on foot> about 25-minute walk ○ Kashiwa Station West Exit (JR Joban Line) <Tobu Bus> 西柏01 for National Cancer Center (via Kashiwanoha Park) → get off at Todai-mae, Todainishi stop. 柏44 for National Cancer Center (via Customs Training Institute) → get off at National Cancer Center stop. C Edogawadai Station East Exit (Tobu Noda Line) **Kashiwanoha Station** <Tobu Bus> **Campus** (provisional) 西柏04 for Kashiwanoha Campus Station West Exit (via National Cancer Center) → get off Kashiwa II campus at Todai-mae, Todai-nishi stop. Research Center for Total Life Health and Sports Science 西柏10 for Kashiwanoha Campus Station West Exit (via Midoridai Chuo) → get off at Todai-mae, Todai-nishi stop. International lodge • Kashiwa lodg O Joban Highway Kashiwa interchange take Chiba direction exit to National Road number 16, after 500m turn right at the "Toyofuta Industrial Estate Entrance" crossroads. West Exit Getting to the Kashiwa Campus II Tsukuba Express Kashiwanoha Campus Sta. ○ Kashiwanoha Campus Station West Exit (Tsukuba Express Line) <Tobu Bus> 西柏03 bus for Kashiwanoha Campus Station (Customs Training Institute loop line or To Akihabara Kashiwanoha Park Central loop line)  $\rightarrow$  get off at Kashiwanoha high school-mae stop. Tsukuba Express, Tobu Noda L. <on foot> about 15-minute walk Nagareyama-ōtakanomori Sta. ○ Kashiwa Station West Exit (JR Joban Line) <Tobu Bus> To Kashiwa

西柏01 for National Cancer Center (via Kashiwanoha Park) → get off at Kashiwanoha high school-mae stop.

柏44 for National Cancer Center (via Customs Training Institute) ightarrow get off at Kashiwanoha Park Chuo stop.

As of September 2011.

Issued by The Kashiwa Campus Liasion Office, the Kashiwa campus Joint Academic Management council, The University of Tokyo

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