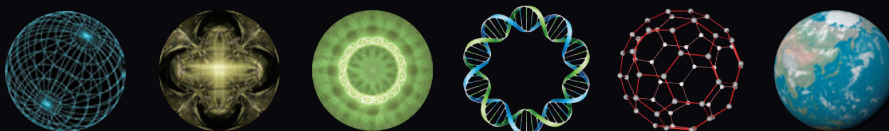




Graduate School of Science

PROGRAMS FOR INTERNATIONAL STUDENTS



STRUCTURE OF THE GRADUATE SCHOOL OF SCIENCE



Departments and Courses

○...Course provided in cooperation with other departments of Osaka University
●...Course provided in partnership with research institutes outside the university



Dept. of MATHEMATICS

Algebra
Geometry
Analysis
Global Geometry & Analysis
Experimental Mathematics
Mathematical Science
●Integrative Mathematical Sciences



Dept. of BIOLOGICAL SCIENCES

Molecular Cell Biology
Animal Developmental and Evolutionary Biology
Plant Science
Neurobiology
Signal Transduction Biology
Functional Biomolecular Biology
○Protein Structural Information Biology
○●Chemical Biology
○Life Sciences



Dept. of PHYSICS

Condensed Matter Physics
Particle and Nuclear Physics
Fundamental Physics
Quantum Physics
Interdisciplinary Physics
○Particle and Nuclear Reactions
○Quark Nuclear Physics
○Accelerator Physics
○Science under Extreme Conditions
○Advanced Photophysics
●Advanced Physics



Dept. of MACROMOLECULAR SCIENCE

Macromolecular Synthesis and Reactions
Macromolecular Structure, Properties and Functions
Macromolecular Assemblies
○Informative Polymer Science



Dept. of CHEMISTRY

Inorganic Chemistry
Physical Chemistry
Organic Chemistry
Interdisciplinary Chemistry
○Functional Material Synthetic Chemistry
○Inorganic Compound Function
○Biomolecular Structure
○Complex Molecular Chemistry
○Computational Biology
●Highly Functional Material Properties
●Functional Peptides
●Structural Biomolecular Chemistry
●Chemical Biology for Medical and Health Sciences



Dept. of EARTH AND SPACE SCIENCE

Astrophysics and Planetary Science
Earth and Planetary Material Sciences
Extreme Material Science



Attached Facilities

Research Center for Thermal and Entropic Science

Division of Entropic Science of Molecular Systems
Division of Non-Equilibrium Thermal Science and Soft Matter Science
Division of Extremely Small Scale Thermal Science and Nano-Calorimetry
Division of Micro Biological Thermodynamics
Division of International Collaborations



Forefront Research Center

Challenging Exploratory Research Division
Cross-Disciplinary Project Research Division
Forefront Research Division

Forefront Research Center was reorganized from Project Research Center for Fundamental Sciences (PRC) in April 2022.



Center for Advanced High Magnetic Field Science

Research Division of Physics I
Research Division of Physics II
Research Division of Chemistry and Biology
Research Division of Cooperation
Support Division for Joint-Use



Office of Research Administration

Planning and Evaluation
Educational Planning
Research Planning
International Affairs
University-Industry Collaboration
Public Relations
Risk Management
Safety and Hygiene Management
Common Equipment Management
Research Administration Support

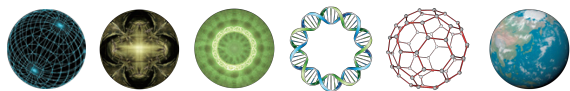
Technical Support Division

Analytical Instrument Facility
Promotion Office for Safety and Hygiene
Support Office for Education and Research
Promotion Office for Public Relations and Information

Administrative Office

General Affairs Section
Personnel Section
Academic Affairs Section
Graduate Students Section
Accounting Section
Contract Section
Research Support Section

EDUCATIONAL GOAL AND POLICY OF THE GRADUATE SCHOOL OF SCIENCE



Graduate School of Science

- “Originality and Inspiration”



Inheriting the founding spirit and tradition of the School of Science, which was established at the same time as Osaka Imperial University, the Graduate School of Science has adhered to its “research-first” mission. The Graduate School of Science has about 220 full-time academic staff and 900 graduate students across six departments: mathematics, physics, chemistry, biological sciences, macromolecular science, and earth and space science. Many of the students and faculty are carrying out original and leading-edge research and trying to expand the fields of research and education. Inspired by watching their teachers pursue their research, students are following suit and developing into world-class researchers and scientifically literate public leaders. The activities of the Graduate School of Science cover the entire gamut from fundamental to applied science, thereby promoting the development of new fields and the accumulation of knowledge for the future.



Graduate Degree Programs in English

Special Integrated Science Course (SISC)

SISC was developed with the aim of training creative and independent researchers who have the capability to work in a broad range of fields and can work in new interdisciplinary areas. SISC offers a full range of lecture courses from high-level basic knowledge to cutting-edge topics, and students in the departments of chemistry, biological sciences, and macromolecular science can take classes that cross the boundaries of their disciplines.



International Physics Course (IPC)

IPC aims to cultivate open-minded researchers and company employees with a wide range of knowledge and who will proactively engage in international research and rise to the challenge of new subjects for research. IPC offers a curriculum composed of lecture-style learning and research activities in the department of physics and related research institutes.



Requirements for Completion of the Graduate Degree Programs

Osaka University awards a master's degree or doctoral degree (PhD) to students who have completed all credit requirements and passed the respective degree examinations. The students must have learned the essence of natural science through their efforts to pursue the truth and must have fully honed their research skills through the education provided by the Graduate School of Science.

Master's Program

The master's program lasts two academic years and requires a thesis for completion. Students spend the first three semesters earning credits through lectures and research work and then write a master's thesis during the last semester.

Doctoral Program

Doctoral students spend the majority of their three years conducting research for their doctoral thesis/dissertation under the supervision of an experienced faculty member.

When their thesis is completed, both master's and doctoral students give an oral presentation about it.

Note: We also accept international students who understand and speak Japanese sufficiently well into the graduate degree programs in Japanese across six departments: mathematics, physics, chemistry, biological sciences, macromolecular science, and earth and space science.



Graduate Educational Programs for All Graduate Students

The following educational programs aim to produce graduates capable of serving as international leaders in the wide range of academia, business, and government. Students are required to attend assigned lectures and complete special activities. Financial aid is also available. For more information, please visit the website of each program.

Doctoral Program for World-leading
Innovative & Smart Education

Multidisciplinary PhD Program for
Pioneering Quantum Beam
Application



Program for Leading Graduate Schools

Cross-Boundary
Innovation Program



Interactive Materials

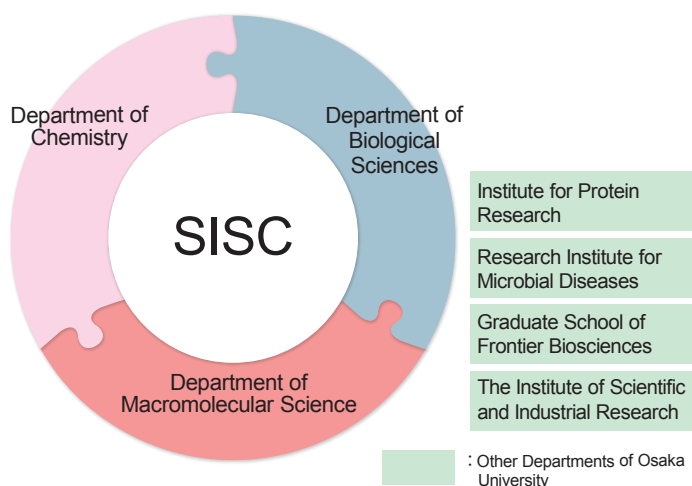
Science Cadet Program



Honors Program for Graduate Schools
in Science, Engineering and Informatics



Special Integrated Science Course (SISC)



Curriculum

The SISC curriculum is designed to introduce graduate students to the latest skills used for research and help them gain in-depth knowledge of advanced topics in chemistry, biology, and macromolecular science.

Master's Program

Basic Biology I & II
Introductory Biology
Biological Science
Bio/Chemoinformatics
Biomolecular Chemistry
Basic Macromolecular Science
Basic Chemistry I & II
Advanced Macromolecular Science I & II
Genome Chemistry
Protein Chemistry
Quantum Chemistry
Thermal and Entropic Science

Analytical Chemistry for Interface
Complex Molecular Chemistry
Natural Product Chemistry
Organic Biochemistry
Structural Organic Chemistry
Topics in Inorganic Chemistry
Advanced Chemical Experiment
Radiation Science in the Environment
Current Topics
Interactive Seminar
Semestral Seminar

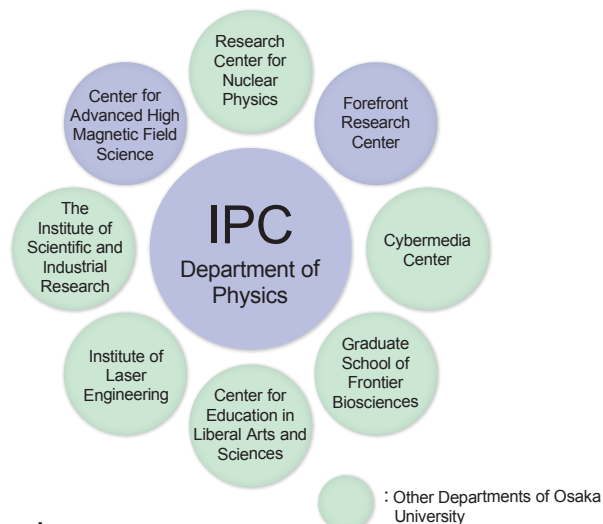
Doctoral Program

Current Topics
Interactive Seminar for Advanced Research
Seminar for Advanced Researches

Find more information about SISC
<https://sisc.sci.osaka-u.ac.jp/global30/SISC/index.html>



International Physics Course (IPC)



Curriculum

The IPC curriculum is composed of classroom learning and research activity under the supervisor of the research group into which the student has been accepted.

Master's Program

Electrodynamics and Quantum Mechanics
Quantum Field Theory I & II
Theoretical Particle Physics
Introduction to Theoretical Nuclear Physics
Quantum Many-Body Systems
Condensed Matter Theory
Solid State Theory
High Energy Physics
Nuclear Physics in the Universe
Optical Properties of Matter

Synchrotron Radiation Spectroscopy
Computational Physics
Cosmology
High Energy Astrophysics
Radiation Science in the Environment
Semestral Seminar I ~ IV

Doctoral Program

Topical Seminar I ~ IV
Seminar for Advanced Researches

Find more information about IPC
<http://www.rcnp.osaka-u.ac.jp/~ipc/>



Application

Contact a Professor

Applicants should contact the head of the research lab to which they intend to apply. In order to apply for a program, the applicant must submit a "Letter of Conditional Acceptance" from the prospective supervisor at Osaka University. For more information on our research labs, please go through the researchers' database at <https://www.sci.osaka-u.ac.jp/en/outline/researchers/>

Admission Procedure

New graduate students will be selected through the screening of documents, a written examination, and an interview.

For more details, please visit our website. If you are unsure about eligibility or have any other query about your application, please contact the Graduate Students, Administrative Office at ri-daigakuin@office.osaka-u.ac.jp





Academic Fees (as of 2022)

| | | |
|---------------------------|-------------|---|
| Tuition fee per half year | 267,900 yen | To be paid in May and November |
| Matriculation fee | 282,000 yen | |
| Entrance examination fee | 30,000 yen | No examination fees are required for IPC and SISC admission |



* These fees are subject to change.

* Full-time privately funded students enrolled in Osaka University are eligible to apply for a tuition and/or enrollment fee exemption or deferred payment. Applications will be screened based on a student's academic achievements and financial status.

Financial Support

There are some financial supports for international students at Graduate School of Science, Osaka University. For more information, please visit our website (https://www.sci.osaka-u.ac.jp/en/overseas-study/financial_support/).



- Japanese Government (Monbukagakusho: MEXT) scholarship
- JASSO Honors Scholarship for Privately-Financed International Students (JASSO: Japan Student Services Organization)
- Osaka University Graduate School of Science Scholarship
- Support by Graduate Educational Programs
- Research Assistants (RA) or Teaching Assistants (TA) etc.

Housing and Living Costs

Accommodation offered by Osaka University and public organizations is limited. Many new students live in privately owned accommodation near Osaka University. The average monthly living cost in Osaka is estimated at approximately 100,000 yen, including the rent. Detailed information is available at the Support Office.

<https://iss-intl.osaka-u.ac.jp/supportoffice/>



Health and Counseling

Osaka University offers many personal counseling resources, including department faculty advisors, international student advisors, and professional counselors at the Health and Counseling Center.

<https://hacc.osaka-u.ac.jp/ja/>



Career Support

The Graduate School of Science and the Center for International Education and Exchange (CIEE) of Osaka University provide assistance for international students who are seeking employment in Japan.

<https://ciee.osaka-u.ac.jp/en/>



FAQ

Q: Do I have a chance to learn Japanese?

A: Yes, we offer an elective Japanese language program for non-Japanese students. For more details, please contact the Center for International Education and Exchange (CIEE) of Osaka University.

Q: How do I contact the professor I would like to work with in the graduate program?

A: Please visit the research pages of the departments in which you are interested. There you will see the names and research interests of our faculty who can supervise MSc and PhD students. The best way is to email a brief overview of your research interests to those who match them. At this stage, it is advisable to cc one of our offices, either gssadmis@sci.osaka-u.ac.jp (for SISC) or ipc-office@ipc.phys.sci.osaka-u.ac.jp (for IPC).



Double Degree Programs

Double Degree Programs are offered in partnership with distinguished universities worldwide. These programs enable students enrolled in the master's program or the doctoral program to obtain a degree at both universities after completing the coordinated curriculum.

For more information, please visit our website (https://www.sci.osaka-u.ac.jp/en/overseas-study/double_degree_program/).



Short-Term Non-Degree Programs

Osaka University offers a wide variety of short-term non-degree programs (one year or less) for international students from the foreign universities with whom there are student exchange agreements (these students are known as "short-term exchange students"). Within these programs, there are a number of classes in which Japanese students may also participate. Through these classes, a close interchange with Japanese students can be achieved. For more details, please refer to the following websites:

FrontierLab@OsakaU: for Engineering and Science Majors www.osaka-u.ac.jp/en/international/inbound/exchange_program/frontierlab

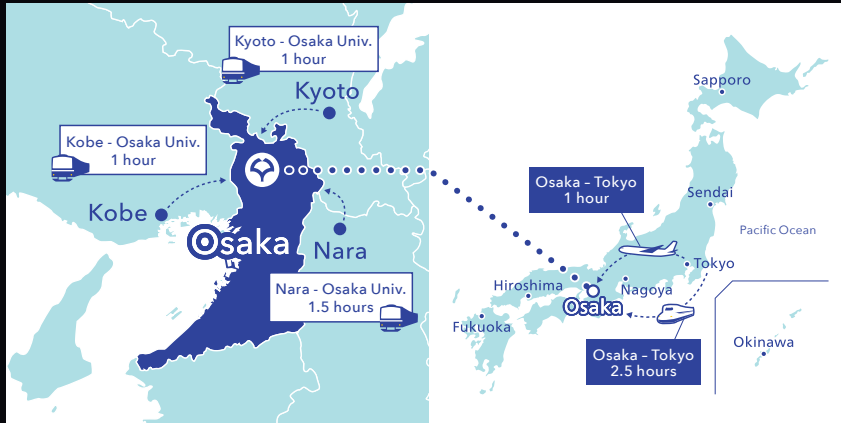
OUSSEP: Osaka University Short-Term Student Exchange Program https://www.osaka-u.ac.jp/en/international/inbound/exchange_program/oussep

iExPO: Immersion Exchange Program Osaka https://www.osaka-u.ac.jp/en/international/inbound/exchange_program/iexpo





Campus Locations and Transportation



Osaka University Overseas Centers

North American Center for Academic Initiatives (Berkeley)
email: info.sf@overseas.osaka-u.ac.jp
URL: <https://www.sf.overseas.osaka-u.ac.jp/en/>



European Center for Academic Initiatives (Groningen)
email: info.groningen@overseas.osaka-u.ac.jp
URL: <https://www.groningen.overseas.osaka-u.ac.jp/en/>



ASEAN Center for Academic Initiatives (Bangkok)
email: info.bangkok@overseas.osaka-u.ac.jp
URL: <https://www.bangkok.overseas.osaka-u.ac.jp/en/>



East Asian Center for Academic Initiatives (Shanghai)
email: shanghai-ina@ml.office.osaka-u.ac.jp
URL: <https://www.shanghai.overseas.osaka-u.ac.jp/en/>

