

Course Highlights

- Explore sustainable solutions for our planet through Earth Observation Technology!

Pickup 01 | **Earth Observation Technology**

KHATRI Pradeep (Associate Professor)
KUWAHARA Victor (Professor)
KAMEDA Tae (Professor)

"Earth Observation Technology" enables a global-scale understanding of Earth's land, atmosphere, hydrosphere, and ecosystems. How do human activities impact the Earth's environment, and what can be done to promote sustainability? This course covers the collection, organization, and analysis of Earth observation data—the foundation for exploring these questions—along with the mechanisms and cutting-edge remote sensing technologies and their societal applications. By working with raw data, students will deepen their understanding of the Earth's current state and consider solutions for environmental issues and the development of a circular society.

- Cleaning the water using Microorganism x IoT!

Pickup 02 | **Water Treatment Engineering Experiments**

IDA Junichi (Professor)
AKIZUKI Shinichi (Associate Professor)

In "Water Treatment Engineering Experiments", through hands-on experience students will learn how to clean polluted water utilizing ability of microorganism. This course covers wastewater treatment using activated sludge method which is widely adopted in both Japan and globally as well as water quality analysis of components related to water pollution such as organic matter, nitrogen, and phosphorus. Experimental data is efficiently monitored using IoT technology. Through practical experiments, students will gain a deeper understanding of actual water purification processes and scientific analysis methods, learning technologies that contribute to environmental conservation.

- Explore the forefront of Global Business

Pickup 03 | **Introduction to International Business**

AONO Kensaku (Associate Professor)

When enterprises conduct business globally, they will come across diverse cultures, such as differences in laws, languages, races, ethnicities, and business customs. Hence, practical understanding of business rules and challenges on the ground is essential. This course will equip students with the expertise to drive the social implementation of green technologies. Students will also gain a profound understanding of key areas for international business success, including entrepreneurship, leadership, SDGs, global business etiquette, and environmental issues and more.

Faculty Members (Speciality)



- ① TODA Tatsuki (Professor, Plankton Engineering)
- ② KUROSAWA Norio (Professor, Microbiology)
- ③ KUBOKAWA Tatsuya (Professor, Mathematical Statistics)
- ④ KUMEKAWA Norikazu (Associate Professor, Plant Breeding)
- ⑤ IDA Junichi (Professor, Materials Science and Engineering)
- ⑥ NAKASAKI Kiyohiko (Professor, Environmental Microbiology)
- ⑦ AKIZUKI Shinichi (Associate Professor, Water Treatment Engineering)
- ⑧ AONO Kensaku (Associate Professor, International Law/ Earth System Law)
- ⑨ KHATRI Pradeep (Associate Professor, Atmospheric Science)
- ⑩ MATSUYAMA Tatsushi (Professor, Chemical Engineering)
- ⑪ SATO Shinjiro (Professor, Soil Science)
- ⑫ KUWAHARA Victor (Professor, Biological & Optical Oceanography)
- ⑬ BHATIA Pranshu (Assistant Professor, Integrated Waste Management)
- ⑭ CHOWDHARY Anupreet Kaur (Assistant Professor, Plankton Engineering)
- ⑮ CHAN Stella (Assistant Professor, Water Treatment Engineering)
- ⑯ KAMEDA Tae (Professor, Robotics)

Q & A

Q.1 Please tell me about "Soka University"

Soka University is a private university founded in 1971 by Daisaku Ikeda, based on the educational philosophy of "value creation" (Soka in Japanese). It's also one of the 37 universities selected as Top Global University in Japan, and ranked 43th domestically in the 2025 QS World University Rankings.

Q.2 I didn't focus much on math or science during high school. Will that be a problem?

During the first year, there are classes to learn basic math and science subjects. You'll be fine! There is also strong student network to support each other.

Q.3 How many international students are enrolled?

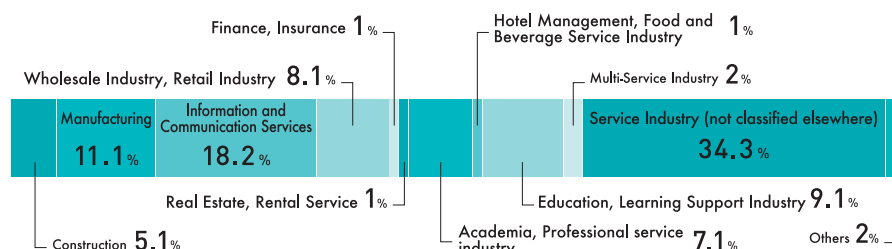
At Soka University, approximately 600 international students from about 60 countries and regions are studying, making up roughly 10% of the entire student body. The university also offers well-equipped international dormitories, ensuring students can focus on their studies and research with peace of mind.



Qualifications · Career Opportunities

Qualifications can be acquired :

- Biotope Planners and Builders ■ Taxonomic Proficiency Test ■ Associate Professional Engineer
- Information Technology Passport Examination (IP) and more



Expected Career Paths

※Included career paths of Graduates from Department of Science and Engineering for Sustainable Innovation

- Private Sector (Construction/Facilities Management Sector, Agricultural Industry, Manufacturing, Information · Telecommunications Industry, Finance · Insurance Industry, Education, Advertising Industry, Other Service Industry and more)
- Graduate Schools (Soka University, The University of Tokyo, Kyoto University, University of Valladolid, University of Florida, Massachusetts Institute of Technology (MIT), National University of Malaysia and more)
- Local and Overseas Research Institutes (National Institute for Environmental Studies, Japan Agency for Marine-Earth Science and Technology and more)
- National Public Officers (Ministries of the Environment, Ministry of Agriculture, Forestry and Fisheries etc.) · Local Public Officers (various Prefecture, City, and Ward levels) · International Civil Servant · NGO · NPO · Japan Overseas Cooperation Volunteers etc.

Admission for International Students

Details about Admission for International students are here.



Application Type	Document-based Admission (April Entry)	Document-based Admission (September Entry)	Interview-based Admission (April Entry)
Application Period	Mid-September to Mid-October	Mid-March to Mid-April	Early November to Mid-November
Selection	Document Screening		Document Screening and Interview
Language requirement	[JLPT N2] or [JLPT N5+TOEFL iBT 61/IELTS 5.5]		JLPT N2
Other Required scores to submit	Score Report of Standardized Examination (including the Mathematics score)		EJU Mathematics (course 2)

Bekka Preparatory Japanese Language Program

Bekka Preparatory Japanese Language Program is a program that provides Japanese language education to foreign students with the aim of cultivating enough Japanese proficiency to take courses at the undergraduate school.

Upon completing this program and achieving JLPT N2 level, students will be eligible to advance to an undergraduate program at Soka University.

Details about "Bekka" are here.



Academic Fees and Financial Support System for International Students

Details about Admission for International students are here.



Academic Fees

For 1st year: 1,570,000 JPY
(1,370,000 JPY for tuition + 200,000 JPY for admissions fee)
For 2nd and following years: 1,370,000 JPY per year

Academic Fee Exemption Scholarship for International Students

Household income	Exemption ratio
Below 8,000,000 JPY	50% exemption
8,000,000 JPY or above	No exemption

Soka University Undergraduate International Student Designated Country * Grant

* Designated countries and territories
Korea, Brazil, Malaysia, Singapore, Hong Kong, Cambodia, Laos, Myanmar, Vietnam, Indonesia, Bangladesh, Nepal, Sri Lanka, Mongol, Uzbekistan, Kirghiz, Kazakhstan, Tajikistan, African countries set by the foreign ministry

Grant period	Grant amount
Upon University Entrance	200,000 JPY (One time per person)
Annually	300,000 JPY (Max 4 times per person)



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Regarding the Department of Green Technology

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Regarding the Entrance Examination for International Student Entrance Exam

International Affairs Office
Tel: +81-42-691-8230 E-mail: welcome@soka.ac.jp



Faculty of Science and Engineering Department of Green Technology



Seeking sustainable solutions for the Earth



<https://www.soka.ac.jp/en>



What is Green Technology?

Technologies essential for solving climate change and food security issues such as energy efficiency and CO₂-mitigating biological production

The Earth is boiling – to prevent global warming before it's too late, we need “Technologies” that build a carbon-neutral society. We must ensure “Green” and sustainable food production and develop “Businesses” that spread these ideas and technology globally.

Earth Environment Science and Technology

- ▶ Remote Sensing Observational Platforms
- ▶ Environmental Restoration Technology



Resource Circulation Science and Technology

- ▶ Plankton Engineering
- ▶ Waste Treatment Engineering



Environmental Information Processing

- ▶ Environmental Information System
- ▶ Machine Learning (AI)



Green Technology Social Implementation

- ▶ Environmental Business
- ▶ International Cooperation and Marketing



Earth Today

- Global warming caused by greenhouse gases
- Unsustainable food production with high environmental impacts
- Environmental pollution and biodiversity loss due to inefficient waste management
- Linear society with mass production/consumption

Earth Tomorrow

- Carbon-neutral society through clean energy and Earth observation technologies
- Carbon-neutral production systems using innovative sustainable technologies
- Biotechnological approach to circular-resource recovery and ecosystem conservation
- Circular society with global sustainable business models

Three Domains of Learning and Student Development

Green Technology

Key Learning Points

point 1 Integrated Arts and Science Curriculum

Students gain broad knowledge in introductory courses in the first year, then focus on specialized subjects from the second year onward in both the Humanities and Science.

point 2 Seminars and Laboratory Courses from the First Year

From the first year, students engage in a variety of specialized seminars and laboratory courses broadening knowledge and interests while discovering academic expertise for the future.

point 3 English Supported Program (ESP)

ESP allows students to take certain courses in English both in Department and other Faculties to enhance English proficiency in both basic and specialized subjects in the Humanities and Science.

Step Up Program

Green Technology Research Experience

Kick Start your research journey since year 1 in your area of interest

During year 1 fall semester and year 2 spring semester, student will be divided into groups of 5 – 6 to tackle various research theme decided by instructors respectively. Through the experiment, student will discover the area of interest which is most suitable for themselves.



Green Technology Overseas Training

Green Technology on field training in Malaysia and Brazil

By engaging in preliminary studies at the university and participating in approximately two weeks of overseas training, students gain practical experience with real-world applications of technologies they have learned in Earth Environment Science and Technology, Resource Circulation Science and Technology, and Environmental Information Processing such as renewable energy, energy conservation, resource recycling, and information processing. This is achieved through hands-on training at overseas companies, universities, and field sites.



Learning Keywords

Environmental Science # Earth Science # Biological Science # Decarbonization Technology # Carbon Neutral
Integration of Humanities & Sciences # International Collaboration # Industry-Academia Collaboration # Green Transformation (GX)

4 Year Curriculum

First Year

Study to understand Green Technology

Second Year

Choose from variety lectures or experimental courses that suits your interest

Third Year

Deepen your understanding through affiliated laboratory

CHECK! Kickstart your in-depth research through assigned seminar

Fourth Year

Green Technology Core Subjects

Introduction to Green Technology
Fundamental Green Technology Practicum

Green Technology Research Topics
Data Science Practicum

Seminar 1
Seminar 2

Graduation Seminar 1
Graduation Seminar 2

CHECK! No worries even if you are not good at math

Introductory Mathematics
Foundations of Chemistry
Foundations of Biology
Chemistry Experiments
Introduction to International Business

Fundamentals of Information Science
Thermodynamics

Materials Science
Instrumental Analysis

Graduation Research 1
Graduation Research 2

CHECK! Deepen your study in science-related courses

General Education Course

Freshman Project
Academic Writing 1
Introduction to Data Science

Earth Environmental Science and Technology related courses

Climate Change Science
Ecology
Earth Ecosystem Monitoring
Earth Observation Technology

Soil Science
Earth Science Experiments
Marine Observation Practicum
Environmental Analytical Chemistry Experiments

Resource Circulation Science and Technology related courses

Introduction to Green Chemistry
Environmental Microbiology
Environmental Microbiology Experiments
Ecological Environmental Engineering

Plankton Engineering
Water Treatment Engineering Experiments
Waste Treatment Engineering
Bioreaction Engineering Experiments

Environmental Information Processing related Courses

Fundamental Statistics
Environmental Information Systems
Life Cycle Assessment
Mathematical Statistics 1, 2

Machine Learning (AI) Practicum
Multivariate Analysis
Data Analysis Practicum
Life Cycle Assessment Practicum

Green Technology Social Implementation related courses

Public Policy (Regional Revitalization Business)
International Technical Cooperation
Introduction to Business Innovation
International Technical Cooperation Practicum
International Business Law

Environmental Management
Business Planning Practicum
International Technical Cooperation Training
Green Technology Overseas Training (Malaysia, Brazil)
Green Technology Internship

CHECK! Select courses based on your area of interest and deepen your understanding

English Supported Program

First Year

Second Year

Third Year

Fourth Year

Required Credits of Japanese Language Courses

16 credits

5 credits

Expected Japanese-Language Proficiency

JLPT N4-N3 level

JLPT N3-N2 level

JLPT N2-N1 level

Language of instruction for Departmental courses

English, English / Japanese hybrid, or Japanese

Mainly Japanese with some hybrid