上智大学
SOPHIA UNIVERSITY

# DGTech

## Department of Digital Green Technology

**Faculty of Science and Technology**

**Department of Digital Green Technology**

**To be established in April 2027**

**English-taught Program**

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| Faculty Name: | **Faculty of Science and Technology** |
| Department Name: | **Department of Digital Green Technology (tentative)** |
| Degree Offered: | **Bachelor of Engineering** |
| Enrollment Capacity: | **50 students**<br>**(approximately half are expected to be international students)** |
| Total Capacity: | **200 students** |
| Number of Faculty Members: | **10** |
| Campus Location: | **Sophia University Yotsuya Campus**<br>**7-1 Kioi-cho, Chiyoda-ku, Tokyo 102-8554,**<br>**Japan** |

The information provided is based on the planned establishment and is subject to change.

https://fst.sophia.ac.jp/department/dgtech

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# Gear Up for the Greener Future

As technology, including generative AI, evolves and spreads rapidly, the importance of Green Transformation (GX) in achieving a sustainable, greener society continues to grow. In response, Sophia University will establish the Department of Digital Green Technology in April 2027 within the Faculty of Science and Technology.

This new department aims to nurture next-generation innovators who will lead GX and tackle global challenges. The curriculum, delivered entirely in English, equips students with cutting-edge engineering skills based on data science and digital technologies.

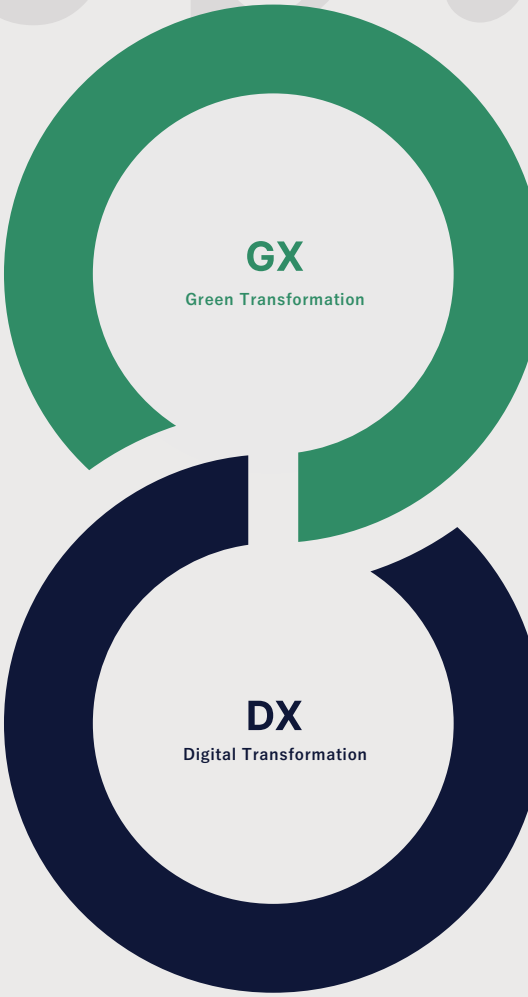
By collaborating with peers from diverse backgrounds worldwide, students will gain the knowledge and expertise needed to drive meaningful change for the future of our planet.

# Tackling the Challenge of Building a Sustainable Green Society

In 2012, Sophia University's Faculty of Science and Technology launched two programs, Green Science and Green Engineering, focusing on environment and sustainability. These programs, conducted entirely in English, have provided a world-class education in science and technology. Building on this foundation, the new Department of Digital Green Technology will further enhance and expand this world-class science and technology education in English.

The new department places data science and digital technologies at the core of its curriculum, while offering an interdisciplinary education that integrates traditional fields of science and engineering, such as electrical and mechanical engineering, as well as biology and chemistry. Students will systematically explore the role of engineering in addressing the challenges of our future society.

The program focuses on fostering the ability to apply knowledge of data science to other fields, enabling students to create new value that transcends conventional boundaries. The department aims to cultivate individuals with the passion and leadership to confront global issues—such as carbon neutrality, resource recycling, and biodiversity—and to drive innovation through Green Transformation (GX).




## Cutting-Edge Learning for Problem Solving

- All courses, including exams, reports, research supervision, and thesis writing, will be conducted entirely in English.
- The program offers a strong foundation in data science and programming, which are essential for various fields in modern science, while also equipping students with DX technologies critical for a data-driven society, such as machine learning and AI.
- Students will explore fundamental technologies in fields such as electrical and mechanical engineering, as well as biology and chemistry, which are vital for solving environmental issues, and advance their knowledge through the study of cutting-edge GX technologies built on DX foundations.
- Through internships and Project-Based Learning (PBL) in collaboration with companies and local governments, students will gain hands-on experience and develop practical problem-solving skills applicable in the real world.
- Graduation research is a required component of the program, enabling students to consolidate their knowledge from earlier years and cultivate the ability to independently identify and solve complex problems.

Future Leaders

# Cultivating Innovators to Shape Tomorrow

The new department aims to cultivate the next generation of leaders who possess the knowledge and insight to deeply understand the essence of global environmental issues and contribute to building a sustainable society through innovation. These leaders will explore the scientific principles behind data science, digital technologies, and a wide range of fields in science and engineering, and will approach problem-solving from an integrated, interdisciplinary perspective.

To achieve this goal, the department will award a Bachelor of Engineering degree to students who acquire the following essential qualities and skills:

### Logical Analytical Skills

The ability to logically analyze societal challenges, including environmental issues, based on foundational knowledge in the humanities, social sciences, and natural sciences, as well as an integrated understanding of these fields.

### Insightful Interpretation Skills

The ability to identify key characteristics from diverse data generated by natural phenomena and human activities, and to derive insights into their meaning and essence.

### Practical Application Skills

The ability to acquire foundational knowledge in environmental science and technology that contributes to the development of a sustainable society, and to apply this knowledge to solving real- world problems.

### Exploratory Skills for New Possibilities

The ability to identify and solve problems using data-driven approaches, while also exploring the potential for societal transformation through advancements in environmental science and technology.

### Conceptual Problem-Solving Skills

The ability to draw on knowledge gained through learning and experience to independently identify issues and design solutions aimed at achieving a sustainable society.

### Leadership for Transformation

The ability to lead societal change by applying science and technology through entrepreneurship or social initiatives, with a deep understanding of what a sustainable society entails.

**Future Career and Academic Paths**

**Future career and academic paths include a wide range of options, such as pursuing graduate studies, working at government agencies or local municipalities, or joining companies in Japan or abroad.**

## Admissions

**This information is subject to change. For the latest information, visit DGTech's official website.**

- There are two entry periods: Spring (April) and Autumn (September)
- The methods of admission are as follows:
  - Spring: Regular Admissions (Documents screening) and Admissions by Recommendation (Only for those who are enrolled in Japanese high schools)
  - Autumn: Regular Admissions (Documents screening)