



## Global Scientists & Engineers Program





# GSEP PROGRAM OVERVIEW

## GSEPについて

Institute of Science Tokyo (Science Tokyo) started the Global Scientists and Engineers Program (GSEP) in April 2016.

GSEP is Science Tokyo's first international Bachelor of Engineering degree program and allows qualified international students with little or no Japanese language proficiency to pursue a Bachelor of Engineering degree from Science Tokyo.

### We are looking for talented students with:

- an interest in science and engineering and a determination to solve social issues and global problems
- a willingness to explore and create new knowledge
- an interest in understanding different cultures and values
- an open mind toward new activities and new ways of thinking

Students in GSEP belong to the Department of Transdisciplinary Science and Engineering (TSE) where they study science, engineering, and management. GSEP is a transdisciplinary degree program that is not limited to any specific science or engineering field. Most of the core curriculum is conducted through project-based learning or hands-on formats covering various fields of science and engineering. After completing the required number of credits in the undergraduate course—and successfully completing the independent research project—GSEP students earn a Bachelor of Engineering degree.

2016年4月に始動した融合理工学系国際人材育成プログラム GSEP (Global Scientists and Engineers Program) は、世界各国 (特にアジア諸国) の優秀な若者を対象とした英語学位プログラムです。気候変動問題や過剰な都市化に伴う交通渋滞問題に代表される近年のグローバルスケールな問題に対して、その構造や利害関係を理解し、それぞれの専門分野の壁を越えて知見を統合し、新たなアプローチ、ビジョン、そして高い志をもって問題解決にあたる人材を輩出することを目的としています。

- 現在、タイ、モンゴル、インドネシア、ベトナム、フィリピン、台湾出身の学生が所属しており、授業はすべて英語で行われます
- 工学に共通する基礎科目を横断的に学びます
- デザイン思考を実践する問題解決型授業 (プロジェクトベース学習、PBL) が多く取り入れられ、現代エンジニアリングの共通言語・知識として重要になりつつあるプロジェクトマネジメントに関する実践的な講義などを必修科目としています

GSEPで学ぶ留学生は、2年次から融合理工学系コースに所属する日本人学生と共に学ぶ機会が多く、また、日本語を必修の外国語として学ぶなど、日本で学ぶ意義も強調しています。GSEPは融合理工学系の一部として、世界各国からの学生を対象に、マネジメント能力とコミュニケーション能力を備えグローバルな視点を持つ技術者・研究者の育成を目指します。



project-based  
learning



close relationship  
with faculty



multicultural learning  
environment



extracurricular  
activities

# MESSAGE FROM THE SCIENCE TOKYO PRESIDENT

The challenges facing global society are growing increasingly complex, requiring scientists and engineers to move beyond traditional academic boundaries. Addressing these complex global issues demands a transdisciplinary approach which integrates diverse fields of knowledge and fosters collaboration across cultures.

Science Tokyo has embraced this vision through the Global Scientists and Engineers Program (GSEP)—the university's first undergraduate engineering program conducted entirely in English. GSEP provides international students with a unique opportunity to study alongside Japanese students in a truly global academic setting.

As part of the Department of Transdisciplinary Science and Engineering, GSEP students engage in a broad spectrum of fields, from chemical, mechanical, and electrical engineering to environmental policy, applied economics, and even linguistics. The program emphasizes practical, hands-on learning through project-based courses and transdisciplinary collaboration, equipping students with the skills to innovate, solve real-world problems, and manage complex projects.

GSEP cultivates future leaders with the ability to think creatively, co-create with experts from diverse disciplines, and contribute to the advancement of science and technology. We welcome passionate prospective students from the world to join this dynamic and inclusive learning community and help shape a better future.



**Yujiro Tanaka**  
President  
Institute of Science Tokyo

# WHAT IS TRANSDISCIPLINARY SCIENCE AND ENGINEERING?

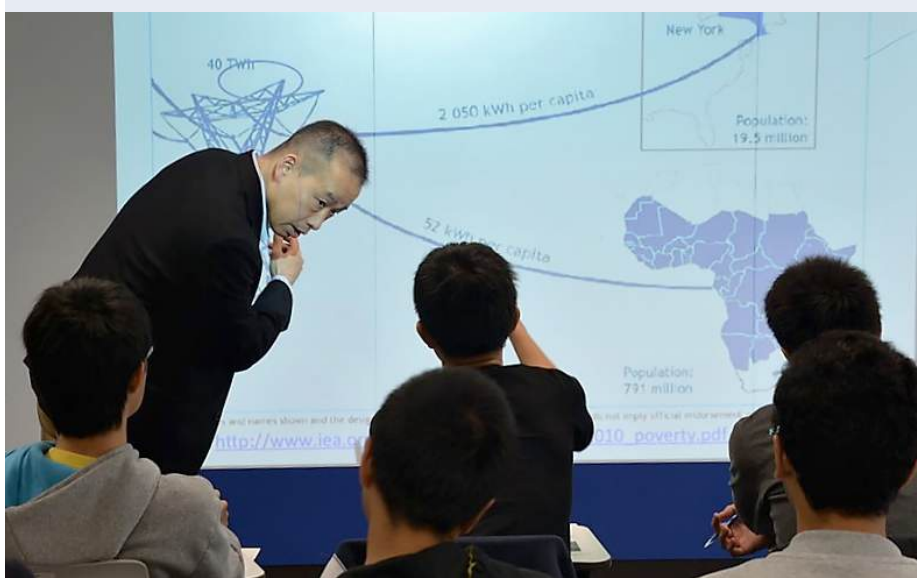
**GSEP students will major in Transdisciplinary Science and Engineering, an approach through which researchers go beyond the boundaries of academic fields to solve the complex problems shared by global society.**

The Department of Transdisciplinary Science and Engineering (TSE) at Institute of Science Tokyo is the fusion of a wide range of fields, including chemical engineering, mechanical engineering, electrical and communications engineering, civil engineering, and biological engineering. It encompasses environmental policy and planning, applied economics, sociology, translation studies, and applied linguistics, and students acquire practical skills hand in hand with academic knowledge.

Specifically, TSE aims to train individuals as global scientists and engineers who can:

- contribute to the innovation of novel technology, values, and concepts needed by society
- define and solve problems
- think creatively and carry out projects
- communicate and co-create with engineers in other fields with a global perspective
- manage complex, large-scale projects and organizations

After taking the majority of their undergraduate subjects and completing the necessary course work, GSEP students affiliate themselves with their chosen research laboratory according to their research interest, choosing from the diverse fields of specialization represented by the TSE faculty. They work on their independent research project under the supervision of their research project adviser from the TSE department. To ensure an environment that enables them to truly concentrate on their own research, they have access to all Science Tokyo facilities for their research needs. GSEP students are also able to interact and engage in research activities with other members of the laboratory, many of whom are also international students.



# STUDENT VOICES

**Thanaphat Lertmongkhon**  
Thailand  
GSEP student



**Vinnie Chuawanta**  
Indonesia  
GSEP student



“**The global perspective and broad foundation I gained from GSEP will remain invaluable.**”

Once, I thought that GSEP was meant for everyone else but me. Eventually, my fourth-year research changed everything. I learned the essence of integrating knowledge across disciplines, mostly in a hard way. The deeper I delved into my studies, the narrower my perspective became. GSEP taught me that better solutions might exist if we look at problems differently and integrate knowledge from multiple disciplines. I found an aesthetic in this way of thinking, and surprisingly, it improves my research and studies. As I continue my journey in planetary science, the global perspective and broad foundation I gained from GSEP will remain invaluable. The program didn't just educate me. It changed how I think, problem-solve, and approach the unknown.

My journey with GSEP has been a blend of exploring diverse, rigorous courses, late-night project grinds, and unforgettable moments with peers from across the globe. I've led teams, mentored fellow students, and navigated the challenges of a multilingual, multicultural academic environment. Here, you won't just attend classes—you'll innovate, collaborate, and push yourself in ways you never imagined. The intensity is real, but that's what makes it exciting! To future students: if you're hungry for a challenge and ready to step beyond your comfort zone, GSEP will unlock doors you never knew existed.

“**If you're hungry for a challenge and ready to step beyond your comfort zone, GSEP will unlock doors you never knew existed.**”

## COURSE STRUCTURE

**The course begins with foundation subjects focusing on math and fundamental sciences.**

In the second and third years, students take courses that will train them to be better engineers and scientists. Students learn practical collaboration through project-based learning. The final year rounds off the undergraduate course, and students conduct specialized studies, projects, and research.

Year 1	BASIC SCIENCE AND TECHNOLOGY COURSES		
	Mathematics (Linear Algebra, Calculus)	Chemistry (Organic, Inorganic, Physical)	
	Physics (Mechanics, Electromagnetics)	Life Sciences	
Year 2	FUNDAMENTALS OF MATHEMATICS	FUNDAMENTALS OF ENGINEERING	FUNDAMENTALS OF CO-INNOVATION
	Ordinary Differential Equations, Partial Differential Equations for Science and Engineering, Linear Systems, Statistics, and Data Analysis	Solid Mechanics, Engineering Measurement, Fluid Engineering, Electrical Engineering, Biological Engineering, Chemical Reaction Engineering, Material and Molecular Engineering, and Engineering experiment subjects	System Design Project, Social Design Project, Project Management, International Development, System Design, and Impact Assessment
Year 3	Subjects on international development, social environment policy, global and local environment, resource and engineering, engineering design, nuclear engineering, etc.		
Year 4	Independent Research Project, Advanced Independent Research Project		

Humanities and social science courses, English and Japanese language courses



**Keito Inoue**  
Japan  
TSE student



**Yu Aoki**  
Japan  
TSE student



“Every time we learn together, I feel the energy of people connecting, enjoying, and creating memories.”

Through my experience with GSEP, I have learned the importance of collaborating with people from diverse backgrounds. Every time we learn together, I feel the energy of people connecting, enjoying, and creating memories. As a Japanese student who has never been abroad or interacted with foreigners, studying, hanging out, and celebrating together has been one of the most valuable experiences of my life, all starting from a single class. I truly appreciate GSEP for giving Japanese students the opportunity to embark on this incredible journey. I hope these deep connections will continue to form and thrive in the future.

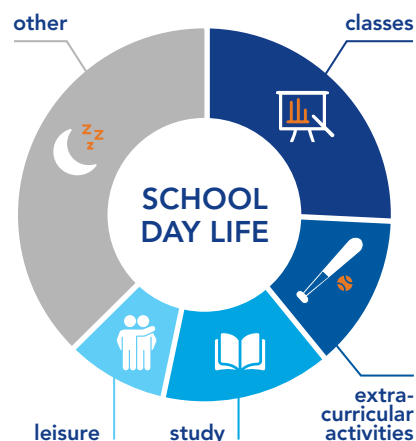
Since it was my first time taking major courses in English, I initially struggled to understand new concepts and ways of thinking in a non-native language. However, with the kind support of classmates and GSEP students, I gradually adapted to the international environment and gained confidence in academic discussions.

This diverse environment has helped me develop the ability to participate in research discussions with foreign students and researchers, improving both my communication and presentation skills. Additionally, it has given me valuable opportunities to learn about different cultures. I truly feel that this is like a small global community where I can broaden my perspective and connect with people from around the world.

“I can broaden my perspective and connect with people from around the world.”

## TYPICAL SCHOOL DAY SCHEDULE OF GSEP STUDENTS

Administrative staff and students of Science Tokyo offer support to international students, including student tutors who are hired part-time to assist incoming GSEP students. During the first year, accepted students will stay at university endorsed dormitories.



## GSEP ACTIVITIES

### SCIENCE TOKYO VISIONARY PROJECT

Headed by the Institute of Liberal Arts, the Visionary Project is about exploring a world in which there are no correct answers. It aims to strengthen humanity, sociability, and creativity—pillars that help each student maximize his or her potential in society. Through self-discovery, students are encouraged to set individual goals which help them create a vision of their own unique path for the next four years of university life.

### FIELD TRIPS AND STUDY TOURS

GSEP students, together with the faculty and other students of the department, on occasion travel to broaden their perception. Visits to factories, museums, and international companies are quite common. Students also take on internships and participate in competitions abroad.

### LUNCH MEETINGS

Frequent lunch meetings are held between the faculty and GSEP students. Here, they can talk freely and share light-hearted moments. Once in a while, guest experts and university staff are also invited to give talks and share upcoming events.



# APPLICATION PROCEDURE

The call for applications usually goes out in **June or July**, and documents are accepted until early **September**.

Results are announced around **November**, and successful applicants enter Science Tokyo in **April** of the following year.

[www.titech.ac.jp/english/graduate\\_school/international/gsep](http://www.titech.ac.jp/english/graduate_school/international/gsep)

The application procedure is briefly summarized as follows:

1

## CONFIRM APPLICANT ELIGIBILITY

Eligibility conditions will vary depending on the available scholarship opportunities. Please refer to the GSEP Science Tokyo website for further updates.



2

## PREPARE APPLICATION DOCUMENTS

Check the application guidelines, and prepare certificates and other documents.

2024 guidelines for reference:

<https://www.titech.ac.jp/english/admissions/pdf/gsep2025-applicationguideline-20240814-1.pdf>



3

## ONLINE APPLICATION

Apply by filling in the required items and uploading documents on the online application form available on the GSEP Science Tokyo website by the designated date.



4

## PRELIMINARY SCREENING

(Evaluation of application)

Submitted documents will be reviewed by the Undergraduate Admissions Group and professors of the TSE department. The results will be delivered by email to each applicant.



5

## SECONDARY SCREENING

(Written exam and interview)

Applicants who pass the preliminary screening will be interviewed by GSEP professors and will take a written examination that covers high school mathematics, physics, and chemistry. The examination is usually conducted in the applicant's country of residence. Further details and instructions will be sent by email immediately after the applicant passes the preliminary screening.



6

## ANNOUNCEMENT OF ADMISSIONS

Final results will be delivered by post. Inquiry by email is not accepted.



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## ENROLLMENT AND START OF QUARTER

For successful applicants, enrollment procedures start at the end of March, and the spring semester begins April 1.



## FINANCIAL AID/ SUPPORT

Students who apply to GSEP will have the chance to apply for MEXT scholarships from the Japanese government. Those not receiving a MEXT scholarship may apply for other scholarships, such as those from the Japan Student Services Organization (JASSO) and other private institutions, after their admission.

They may also apply for a tuition fee exemption after fulfilling university requirements.

## APPLICATION, ADMISSION, AND TUITION FEES

Applicants who are selected as recipients of the MEXT scholarship are NOT required to pay application, admission, or tuition fees. Applicants who are successful but NOT selected for the MEXT scholarship must pay the following fees\*:

Application fee (one-time)	¥17,000
Admission fee (one-time)	¥282,000
Tuition fee (yearly)	¥635,400

\*fees are subject to change without notice

## CONTACT INFORMATION

For prospective students, please check the official GSEP website:  
[www.tse.ens.titech.ac.jp/~gsep](http://www.tse.ens.titech.ac.jp/~gsep)

For inquiries about GSEP, contact:  
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Office Hours: 9:00–12:15, 13:15–17:00 JST



GSEP Official Facebook Page:  
[facebook.com/gsepsciencetokyo](https://facebook.com/gsepsciencetokyo)