



Undergraduate Transfer Program, Japan

Global Science Course



Coordinator's Message



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Global Science Course Coordinator
Vice-Dean, School of Science

Welcome to the Global Science Course.

Global Science Course (GSC) is an undergraduate transfer program in the School of Science at the University of Tokyo. It was established to create an international platform that enhances cross-cultural interactions among young minds from around the world coming together to learn science at one of the top universities in the world.

All the GSC classes and lab sessions are conducted in English by world-leading professors who are pursuing cutting-edge research in the most advanced fields, while also focusing on the fostering of students who will lead the next generation of scientists. As the GSC curriculum covers a variety of interdisciplinary research areas in basic science, students from various scientific backgrounds are encouraged to apply to this program.

Since its launch in 2014, we have welcomed many bright undergraduate transfer students from various countries. We are pleased to know that they have been enjoying their academic lives at the University of Tokyo as well as their everyday lives in Japan.

We strongly believe that the University of Tokyo's long established history of commitment to excellence in research and education will help develop the potential of young students on GSC. On behalf of the faculty, staff, and students, I am delighted to welcome you to the School of Science at the University of Tokyo.

大越 慎一

The University of Tokyo (UTokyo)

The oldest and most prestigious university in Japan

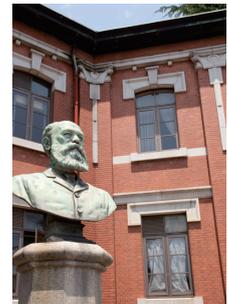
Since our foundation as a national university in 1877, UTokyo has led research and education in Japan. For more than a century, our graduates have gone on to explore space and expand the frontiers of human knowledge. Today, over 10,000 academic and administrative staff, and over 28,000 students, make UTokyo one of the most important global hubs of research and education in one of Asia's most exciting cities.

Academic Excellence

The School of Science provides outstanding opportunities for intellectual development and the acquisition of professional knowledge and skills. As represented by our Nobel Prize and Fields Medal recipients, students learn in an environment that produces internationally recognized research and promotes scientific advancement.

Fostering Internationalization

Our students are equipped with the means to solve future problems and address new, previously unencountered issues. In recognizing the strength of our school, we hope to nurture students with global perspectives to become future leaders in the world of science.



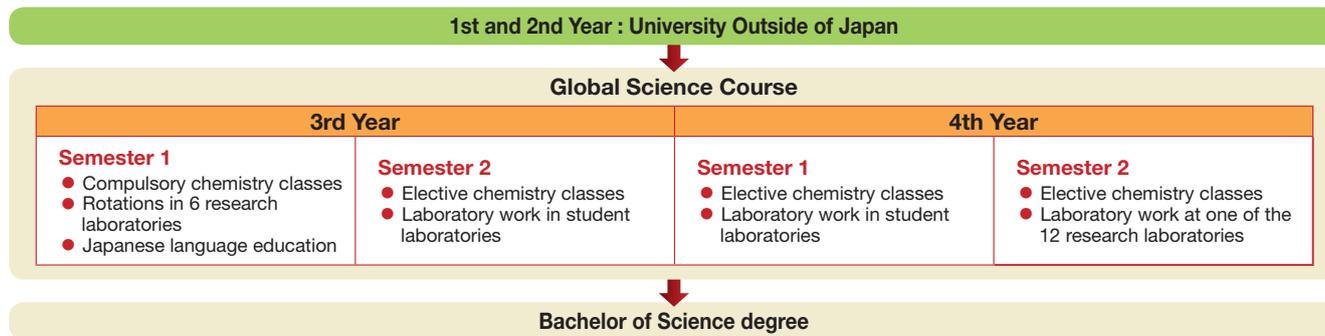
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Global Science Course (GSC)

GSC offers a unique opportunity for international students to pursue studies at the School of Science where Japanese language proficiency is not a requirement.

Under GSC, the School of Science accepts undergraduate transfer students from abroad into the third year. Traditional core areas of science are integrated with advanced concepts in order for students to build a solid foundation of knowledge and allow them to embrace new challenges at the same time. Lectures in GSC are delivered in English by world-leading professors, creating an academic environment in which students from around the globe can learn alongside current UTokyo students. In addition, renowned professors from abroad deliver special lectures and seminar talks.

Upon fulfilling all graduation requirements, students are awarded with a Bachelor of Science degree from UTokyo.



*GSC is currently only being offered in the Department of Chemistry.

Classes and Lab Sessions

The Department of Chemistry is the oldest research facility in Japan. Under the guidance of dedicated faculty, GSC students are able to learn advanced concepts that integrate chemistry with physics, biology, earth science, and related fields. As the Department places a strong emphasis on research, each laboratory meets the highest international standards and is equipped with state-of-the-art technology, giving students the opportunity to experience different approaches to research during their time on the program.

One of the most unique features of GSC is the lab rotation. During this time, students have the opportunity to conduct research in six laboratories for two weeks in each lab, which allows them to learn about a variety of fields in chemistry.



Physical Chemistry

- Structural chemistry to learn geometrical structure of molecules
- Molecular spectroscopy to learn molecular vibration and rotation
- Quantum chemistry to learn electronic states of molecules
- Chemical kinetics and dynamics to learn chemical reactions

Analytical Chemistry

- Handling of experimental errors
- Basic knowledge of acid-base equilibria and titrations
- Fundamentals of spectroscopy and electrochemistry
- Introduction to analytical separations

Inorganic Chemistry

- Introduction to the chemistry of elements and their compounds
- Periodic table and periodicity of properties for main group elements
- Group theory and its applications to molecular orbitals and spectroscopy
- Advanced concepts in acidity/basicity and nature of different solvents

Organic Chemistry

- Basic knowledge in organic compounds
- Learn the mechanisms of organic chemical reactions
- Use the chemical reactions to synthesize organic compounds

Cost & Aid

● Cost

Admission fee JPY 282,000

Annual tuition JPY 535,800

As of 2018

● Support

Scholarship

▶ 150,000 Japanese yen per month to aid in paying tuition and support living expenses

Housing

▶ Accommodation provided with fully supported monthly rent

Student Tutors

▶ Student tutors to assist new GSC students with settling into Tokyo

Japanese Language Education

▶ Japanese language classes to help students with everyday life in Japan

Eligibility



- Secondary and post-secondary education received outside of Japan
- Completion of two years of undergraduate studies
- Completion of basic science classes (Basic undergraduate-level classes in Chemistry and at least 2 of the following subjects: Mathematics, Physics, or Biology)
- A minimum of 62 credits corresponding to the UTokyo credit system
- English language proficiency (TOEFL iBT : 80, IELTS Academic : 6.5)

Application Schedule

Early January to Late March Application Period	The online application form and all other required documents, including evaluation forms, must be received by the GSC Administration Office by the application deadline.
April to May Application Review	Applications will be reviewed by the GSC Faculty Committee. After document screening, an online interview may be arranged as the second stage of the application review process.
Late May Admissions Decision	Admission decisions will be notified via e-mail to all applicants. Official admission letters will be sent via postal mail to successful applicants.
Early June Acceptance of Admission	Successful applicants will be required to submit the official documents to accept their offer of admission by the given deadline.
September Enrollment	GSC students start their new academic life at UTokyo.

Instructor Interview

How does GSC differ from other science courses?

Q Well, we really wanted to focus on bringing together bright young minds from all around the world. This way we hope that they will be able to really help one another to excel, producing new and innovative work that pushes scientific boundaries of current theories and ideas.

N By incorporating access to first class resources and the latest developments in laboratory hardware, we have built a strong platform with a course designed to allow students to take the first steps into pioneering a new era of science.



N Prof. **Hiroshi Nishihara**
Inorganic Chemistry
Department of Chemistry
School of Science



Q Prof. **Takeaki Ozawa**
Analytical Chemistry
Department of Chemistry
School of Science

What do you expect from GSC candidates?

N We are looking for the kind of students who are really motivated to excel academically. They must be able to exhibit the potential for intellectual growth.

Q We want students who are also enthusiastic and proactive about introducing and sharing their own cultures within the university's campus.

What can students expect from living and studying in Tokyo?

N Japan has always been on the front line when it comes to creative science which we have already assimilated heavily into our everyday lives here. I feel students will really be inspired living and studying in such a fascinating environment thus facilitating an enthusiastic research culture in new and challenging areas.

Student Voices



Wenyu from China
University of Fudan, Shanghai
2014 – 2016 GSC student
2016 – GSGC student

It's very academic here, we do experiments every day. The classes in GSC are small so you get a lot of individual attention. I have learned a lot from speaking to the professors face to face.

Before I came here, I wasn't sure which branch of chemistry I wanted to go into. However, after doing rotations between 6 laboratories on this program, I've been able to understand a lot more about chemistry. After my experience at the Suga lab, I now know that I want to continue studying bio-organic chemistry.



Kunal from India
IIT Guwahati, Guwahati
2015 – 2017 GSC student
2017 – GSGC student

I have enjoyed doing independent research in labs the most. I was shocked initially to see that each lab has its own equipment and you can use it whenever you want. In India, we have equipment but it's shared. Research that took me one month to do in India only takes me one or two days here at UTokyo.

Now I want to become a researcher in chemistry. Living in Tokyo and doing research, a blend of both things, is what I want to do. I think because the culture in Japan is very similar to that in India, life here is very comfortable for me.

Please visit our website to read more student interviews:
<https://www.s.u-tokyo.ac.jp/GSC/studentlife/studentvoices.html>

Future Prospects

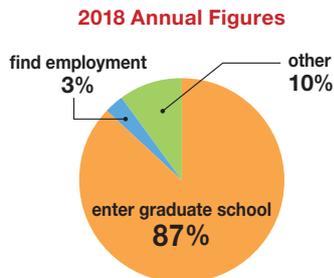
As an undergraduate course, GSC prepares students for success. Our graduates have gone on to pursue postgraduate studies at UTokyo and other renowned universities, as well as find employment in the sciences. There are endless possibilities as to which path students graduating from the School of Science can take after completing their studies.

1 Graduate School of Science

We encourage our undergraduate students to pursue further studies at the Graduate School of Science where all five departments cover a wide range of specialized fields of science. The graduate school provides an excellent environment for first-rate intensive research with the world's leading researchers, and students can learn at the cutting edge of their field.

2 Seeking Employment

The most useful tool for carving students future is the extensive UTokyo alumni network. Upon graduation, students automatically become part of this invaluable global network and have the best chance at the brightest futures.



Further Studies at the Graduate School of Science

Global Science Graduate Course (GSGC) is an international graduate program in the Graduate School of Science, which allows students to obtain their degrees in English. GSGC standardizes a five-year integrated education scheme in which students attend both the Master's program and the Doctoral program in sequence.

Please visit the GSGC website for more details : <https://www.s.u-tokyo.ac.jp/GSGC/>

FAQ

Q1 How many students are accepted onto the program?

Approximately five students are accepted onto GSC each year.

Q2 Can I apply if I'm not a chemistry major?

If you have fulfilled all the necessary course requirements, you may be eligible to apply. Please visit our website for further details.

Q3 What is the minimum GPA requirement?

No minimum GPA has been set as the GSC Faculty Committee reviews all aspects of the application (i.e. academic records, English language test scores, personal statement, evaluation forms, etc.)

Q4 What application documents are required to apply?

Alongside the GSC online application form, the following documents must be submitted:

- Personal Statement
- English language test score (if applicable)
- Two Evaluation Forms
- Certificate of Student Enrollment
- Copies of course syllabi
- University/College Transcript
- Middle School and High School Transcript(s)
- A copy of your passport (photo page)

Please visit our website for more details :
<https://www.s.u-tokyo.ac.jp/GSC/>



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