

Undergraduate Transfer Program



Coordinator's Message

Global Science Course was designed to create a platform enhancing cross-cultural interactions among young minds from around the world coming together to learn science at the University of Tokyo.

The GSC curriculum covers a variety of interdisciplinary research areas in basic sciences. We therefore encourage students from various scientific backgrounds to apply for the program. All GSC classes 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 in science communities.

In October 2014, we welcomed seven bright undergraduate transfer students from overseas under GSC. We are pleased to learn that they are enjoying not only their academic lives at the University of Tokyo but also their everyday lives in Tokyo.

I strongly believe that the University of Tokyo's long established history of commitment to excellence in research and education will help develop the potentials of the young students in GSC.



Kaoru Yamanouchi

Professor of Chemistry
Vice Dean
School of Science



The University of Tokyo (UTokyo)

Since our foundation as a national university in 1877, UTokyo has led research and education in Japan. For more than a century, we have been nurturing minds that have gone on to explore space, win Nobel Prizes and expand the frontiers of human knowledge. Today, over 5,500 faculty and over 27,000 students make UTokyo one of the most important global hubs of research and education in one of Asia's most exciting cities.



→ THE Asia Ranking
2013/2014¹



→ QS Chemistry Ranking
2014²

← THE World Ranking
2014/2015¹



← QS Physics Ranking
2014²



¹ THE University Rankings 2014

² QS World University Rankings by Subject 2014

School of Science

10 departments in the Faculty of Science
5 departments in the Graduate School of Science

Low student-to-faculty ratio

With **219** faculty members and

Over **2,000** students from **29** countries

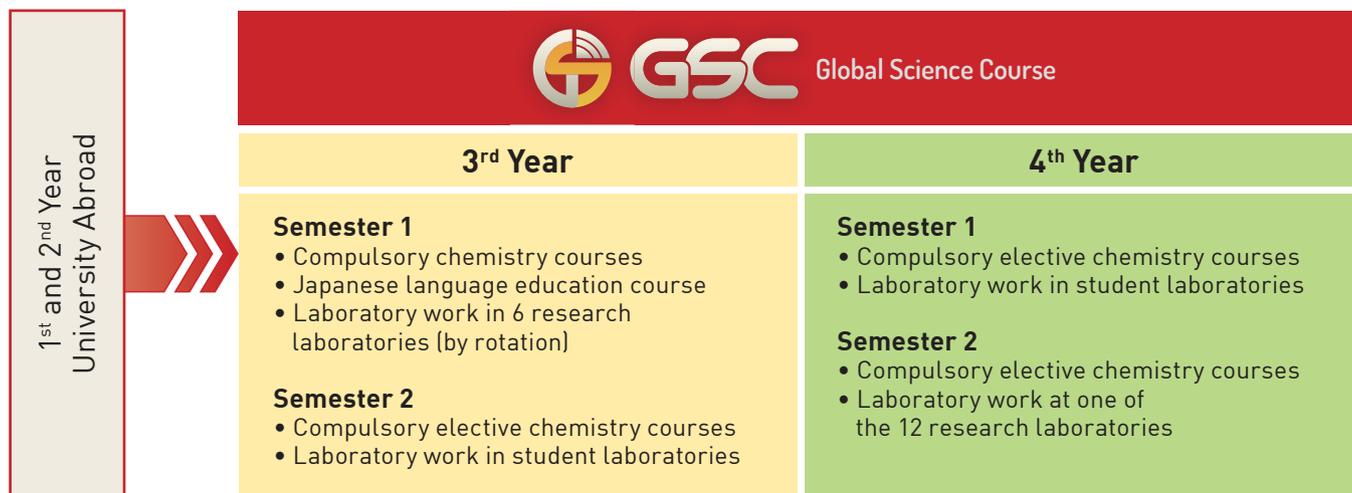
A total of **40,117** alumni worldwide

The School of Science provides students with outstanding opportunities for intellectual development and the acquisition of professional knowledge and skills. In recognizing the strength that our School has, we hope to nurture students with global perspectives that exhibit global leadership qualities. Through the instruction in the concepts and methodologies of science, students will be equipped with the knowledge and means to solve future problems as well as acquire the capability to identify and address new, previously not encountered issues.

Global Science Course (GSC)

For the first time in the history of the University of Tokyo, an all-English undergraduate transfer program has been launched from 2014. GSC offers a unique opportunity for international students to pursue studies at the Faculty of Science where Japanese language proficiency is not a requirement as the whole course will be conducted in English.

Under the GSC Undergraduate Transfer Program, the Faculty of Science will accept undergraduate transfer students from abroad into the third year. For 2014 and 2015, GSC is only available in the Department of 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

Organic Chemistry

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

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

Analytical Chemistry

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

*The above curriculum is only applicable to the Department of Chemistry.



Eligibility

- ✓ Completion of first two years of undergraduate studies
- ✓ Secondary and tertiary education received abroad
- ✓ English language proficiency
- ✓ Basic undergraduate Science knowledge
- ✓ A minimum of 62 credits gained before enrollment

Our support

1 School of Science Scholarship

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

2 Housing

UTokyo International Lodge or private housing arranged by the University with monthly rent fully supported

3 Student Tutors

Student tutors to help transfer students get accustomed to their lives in Tokyo

4 Japanese language

Japanese language classes twice a week to help students overcome the language barrier in their everyday lives

5 Faculty and administrative staffs

Internationally diverse faculty and administrative staff members to provide support



Future Prospects

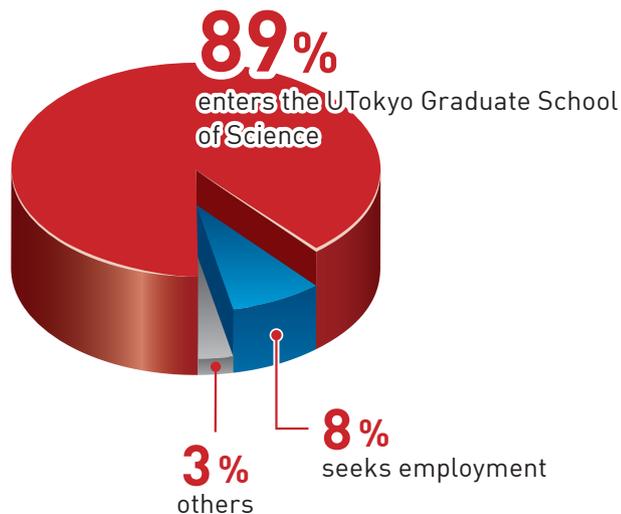
As an undergraduate course, GSC is offering the best possible step toward the respective futures of the students. Undergraduate students graduating from the Faculty of Science have endless possibilities as to which path they can take after completing their studies.

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.



UTokyo undergraduates find variety of job opportunities in various sectors with renowned global organizations and prestigious institutions, such as:

Accenture Japan Ltd	Lenovo Japan
All Nippon Airways Co., Ltd.	Max Planck Institute
BMW Japan Corp.	Mazda Motor Corporation
Bridgestone Corporation	McKinsey & Company
Citigroup Japan Holdings Corp.	Mitsui & Co., Ltd.
Credit Suisse Group AG	Morgan Stanley Japan Holdings Co., Ltd.
Deloitte Touche Tohmatsu Limited	NEC Aerospace Systems, Ltd.
Fujifilm Holdings Corporation	Nikon Corporation
GE Healthcare Japan	Novartis Pharmaceuticals Japan
GlaxoSmithKline	NTT Electronics Corporation
Google Inc.	Olympus Corporation
Hewlett-Packard Japan, Ltd.	Panasonic Corporation
High Energy Accelerator Research Organization	Pfizer, Inc.
Hitachi Solutions, Ltd.	Pricewaterhouse Coopers
IBM Japan, Ltd.	Procter & Gamble Japan K. K.
Japan Airlines Co., Ltd.	SanDisk Corporation
Japan Tobacco Inc.	Shiseido Company, Limited
Johnson & Johnson K. K.	Sony Corporation
J. P. Morgan & Co.	Toyota Motor Corporation
JX Nippon Oil & Gas Exploration Corporation	Yahoo! JAPAN Corporation
Kao Corporation	

and more...

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Takeaki Ozawa**

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Organic Chemistry
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How does GSC differ from other science courses?

O 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.

I One of the best features of the program besides the solid support provided is that the transfer students have the opportunity to work in research laboratories at an early stage which is definitely a rare case for undergraduate students.

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.

I Of course being passionate about learning, but we are creating something new and exciting here so they must also have the skills and confidence to help realize the university's ultimate goal of nurturing them into global leaders.

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

Obviously, the course is aimed at English speaking students, how well will they be able to work with the current students?

N One of our key aims is to create an internationalized Faculty of Science. The international GSC transfer students we select will work alongside the current students all of whom are proficient in the English language.

O There are also Japanese language lessons which we hope the international students will enjoy thoroughly, enabling them to fully immerse themselves in Japanese society and gain a better understanding of the Japanese culture!

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.

I I agree. Tokyo is a vibrant and fun city, there is always something going on, with new and interesting ideas springing up all the time. Students will be astounded by the traditions and innovations Tokyo has to offer.

What are your future hopes for the program?

O Naturally, it is our ambition to see the program expand and flourish. At the moment the course is run by the Department of Chemistry only, but we hope to develop courses in the other departments within the School of Science.

N We have renowned professors and top researchers delivering lectures and conducting seminars, this way, we hope to establish an ever growing worldwide faculty in order to be consistently and effectively adapting the course to cover new scientific issues as well as the core fundamentals.

I We are also looking forward to a future where students from a wide variety of diverse cultures can come together and prosper from having a world class faculty who are committed to innovation and excellence in teaching at their disposal.

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