



Fostering Long-Term Creativity and Innovation with Science and Technology
Disciplines Based on Ochanomizu Spirit "Migakazuba" in the Next Generation of Global Leaders

Program for Leading Graduate Schools

Bouquet

Newsletter

Ochanomizu University

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Pre-Global Internship: In front of the Deutsches Museum (see article on p.3)



お茶の水女子大学
Ochanomizu University

Program for Leading Graduate Schools training female global leaders in science and technology fields

It has been three years since the Program for Leading Graduate Schools at our university accepted its first group of students. We received mid-period evaluations for this program during the 2016 academic year. In the March evaluations, we received high praise in recognition of the fact that our initiatives are moving according to schedule, and that we are on target to achieve the program's goals by continuing with our current efforts. In particular, the evaluation recognized our achievements with the PBTS project (team study in English). In PBTS, students determine self-chosen assignments that reach beyond their field of expertise, and work together as a team to resolve problems. The evaluation recognized that these projects are enabling students to broaden their perspectives, acquire problem-solving abilities, and learn how to conduct presentations in English. In March 2018, the program is scheduled to produce its first doctoral graduate. We hope to further enhance our program with the continued help and cooperation of everyone involved.

《Program merits》 Three skill enhancements

Major course (specialty)



1 Basic
skill-enhancing
subjects

2 Global
leadership
skills

3 Cross-functional
team study



Development of human resources that can produce results to the industry field

[Message from the students] Why did you join to this program?

Miki Tomeoku

Master student of Human Developmental Sciences, Division of Life Science

The reason why I decided to enter the graduate school at Ochanomizu University is because I knew that there was a program that fostered the development of female researchers who have a unique perspective of meeting the need for a healthy lifestyle for everyone. I would like to perform research, for developing a cane for use in alleviating the pain of walking with Osteoarthritis, in the Biomedical Engineering Laboratory. Now I'm enrolled in the Program for Leading Graduate Schools because I'm interested in creating innovative approaches to solving problems, and in fostering the development of women who can become global leaders. By taking both major and minor courses, my aim is to acquire the ability to create innovations that extend a healthy walking lifespan.

I have experience working as part of a team to execute medium and long-term projects in corporate environments. From this experience, I believe that students who work in the PBTS program will acquire the practical skills necessary to confidently execute projects in industry.



[Message from the Study Commons teachers] What are the characteristics of the program?

Study Commons teachers give advice to team-based research conducted by the program's students in the field of sciences. All of the members are from outside Japan. (As of March 2017)



Gary Richards

Project Associate Professor (Chemistry)

Many of our students come from an educational background that is very much a teacher-centered experience, in which students play a largely passive role. So, to join our program, which aims to give a student-centered approach where the students actively decide on most of the important parts of their project including themes and topics, team membership, individual roles and experiment planning and execution, is a huge challenge. Another big challenge is to do all of this in English, which is not the first language of most of our students! I am happy to see that, although it can take some time for the students to find their feet in this new environment, we now have several very good teams working on very diverse areas of research, from water purification to anti-aging tea. The skills the students are learning in this program will be vital to enable them to compete at a national and international level in modern working environments.

“Pre-Global Internship” held for the third class of students

Date: February 19-26, 2017

Location: Munich, Stuttgart, Dusseldorf, and other locations in Germany

Visits to: Heidelberg University, Saarland University, Wuppertal University, Max Planck Institute, Daimler, SAP, Siemens, Lanxess, Deutsches Museum

Twice during the program, students are required to experience internships aimed at enhancing their global skills. Before the internship, seven students from the third class (who entered the program in April 2016) visited facilities in Germany, including universities, research institutes and companies. The visit provided an opportunity for them to experience industrial, governmental and educational institutions outside of Japan.

It was only one week trip, but the students could have an opportunity to visit historic universities, the latest research facilities, and sites where development and production were being conducted. They were also able to have discussions with researchers and engineers working at the forefront in their fields, giving the students a glimpse of the world before them, and providing a great opportunity as they begin taking their first steps toward becoming doctorate holder who is able to work actively in the global environment. The students gave a report on their trip after their return to Japan.



Photo Gallery in 2016

PBTS

Teams are formed with students in different fields of expertise, and these teams work together to resolve problems that they themselves chose to tackle. (Photo shows the third class students holding discussions)



Global Internship

Global Internships were carried out at research institutes, companies, external universities and the administration both inside and outside Japan.



In front of the Institute of Mathematics
Polish Academy, Poland



At the internship site
(Ministry of Education, Culture, Sports, Science and Technology, Japan)



With people from Lanxess, Germany



With research colleagues
(University of Strasbourg, France)

Lectures and lab work

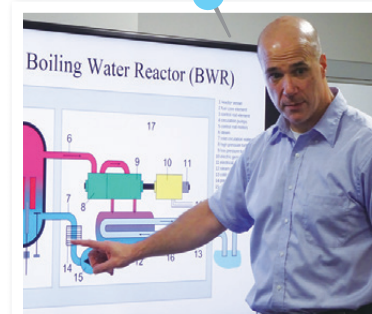
Students study the essential course series offered in English, and attend lectures at special labs for Science and Technology for Global Leaders using cutting-edge equipment from diverse fields.



Essential Mathematics



Special Practice of Cutting-edge Equipment at labs



Essential Physics I



Essential Bioinformatics I



Essential Chemistry II

Exchange Events

The program offered lectures, inviting guest speakers from companies and other organizations, and exchange events with students from other universities.



Discussions with Tanner Lecture speakers



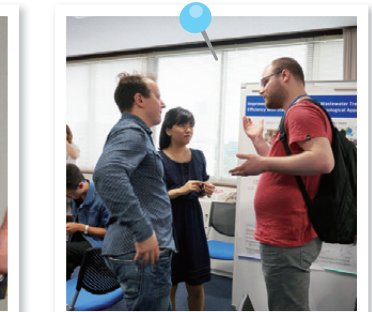
Students introducing Japanese culture



Exchanging opinions with members of
programs from outside the university



Lecture by company executives



Exchanges with participants
of the Summer Program



Exchanges with Leading Graduate School Programs
from other universities



Career support for students

A variety of career-related assistance is being provided to help doctoral graduates find employment and to implement strategies that will enhance their opportunities in the industry.



Career Planning Seminar “Becoming who you want to be-The true powers of a Ph. D”

December 21, 2016
Inter- Faculty Building 2, Room 102 (1F),
Ochanomizu University

A seminar was held on career design for doctoral graduates in the field of sciences. Guest lecturers included doctoral graduates from our Ochanomizu University who are now working at the forefront of their companies. The lectures were given by Dr. Sachiko Itono, an Associate Scientific Fellow at Biomolecular Research Laboratories, Pharmaceutical Research Division, Takeda Pharmaceutical Company Limited, and by Dr. Kanako Onishi of NTT DOCOMO, INC. (Dr. Onishi is on temporary assignment as a research expert at the National Institute of



Dr. Sachiko Itono



Dr. Kanako Onishi

Information and Communications Technology.) Dr. Itono shared information about the various projects that she has worked on in her lecture, titled “Becoming who you want to be: The true powers of a Ph. D” Dr. Onishi mainly shared stories about her experience in England when she was a Ph. D. candidate titled “Nurturing our abilities as a Ph. D! The ability to think in a way that helps you overcome changes” The seminar was a great success, attracting not only students in the Program for Leading Graduate Schools but for also other students from our university.



“Work in progress for students in post doctoral and doctoral studies”

November 16, 2016
Ochanomizu University

We held An exchange event for corporation and PhDs, titled “Work in progress for students in post doctoral and doctoral studies”. The event attracted students from our program. Numerous post-doctoral and graduate school students, as well as companies and organizations, participated in a lively exchange of information at this event. Following short seminars provided by the companies and organizations, a poster session was held as a place for the post-doctoral and graduate school students to present themselves. Later, companies and institutions held exhibits in individual booths, where they had discussions with the students on a one-to-one basis. This provided an excellent opportunity for students to learn about the expectations that companies and institutions have for human resources with doctorate degrees.



Individual exchanges with people from companies



Poster presentations by the students



Special lecture in Science and Technology for Global Leaders I “Introduction to Company Management that Utilizes Technology”

December 2, 2016 -
January 27, 2017
Total of seven lectures

Beginning in the academic year of 2016, lectures started being held to provide basic information in such areas as intellectual property, finance, monetary issues, international economics, environment and energy. These topics are necessary for understanding management strategies at private companies, including business strategies, research and development strategies and the intellectual property strategies of private companies. The lectures introduced specific examples within private companies, and was structured in a manner that is easy for science and technology students to understand.

In order to have the students get having majored in feel for what the actual situation at a private company is like, we invited two guest lecturers to give talks. The first guest was Mr.Masahiro Samejima, who is the inspiration for a lawyer on the popular TV series, “Shitamachi Rocket.” He gave very informative talks about how he, having majored in science and technology as a student, become a popular lawyer, and about methods to bring intellectual knowledge into use in the management of a company, among other topics.

We also invited Mr.Mitsuhiro Takasaki, the president of ENGINEER. INC., a manufacturing company in Osaka. He gave an interesting talk on how MPDP (marketing, patent, design and promotion) are important in the successful making of a hit product, while also discussing his failures.

The lectures overall were informative, and also provided reference for the students' job search activities.



Mr. Masahiro Samejima (January 13, 2017)



Mr. Mitsuhiro Takasaki (January 27, 2017)

Career Counselling and Support for Leading Graduate School Students

Career Coordinator provides career related information through the network with industry and research institutes, e.g. the expectations from industry, the current circumstances of recruitment.

In the individual meeting, students are welcomed to discuss on how to think and act during the Program for Leading Graduate Schools, find some clues on their internship program, and on any issues regarding their career.

Self-introduction

Beside my work at Ochanomizu University, I am a CEO of HR company specialized for Ph.D. candidates, post-doctoral researchers.

After graduating Department of Science and Engineering, I took part in BtoB business, sales, and recruiting engineers and almost a decade ago, I started working on supporting Ph.D. and Ph.D. candidate's career development, and have been conducting many projects regarding career development in Universities, institutes, and our own business.

Talking on my private life, my wife is also a Ph.D. researcher and I also have great curiosity on many research topics.

It is a great honor to support the career development of the Leading Graduate School's students.



Tomonori Fukazawa
Part-time lecturer

■ Activities

January 4, 2017	Started mQE in 2017 (middle Qualifying Examination) (until March 31)
January 13, 2017	The Second Presentation on Global Internship Report 2016
January 13, 2017	Introductory guest lecturer: Masahiro Samejima, lawyer/patent attorney
January 18, 2017	Information session for prospective students for April 2017
January 27, 2017	Introductory guest lecturer: Mitsuhiro Takasaki, President of Engineer Inc.
February 3, 2017	Lecture for PBTS by Vietnamese researcher
February 16, 2017	Seminar with Dr. Chasserot-Golaz (lecture for Department of Chemistry and the Program for Leading Graduate Schools)
February 19-26, 2017	Pre-Global Internship
February 22, 2017	Selection examination for Academic Year 2017 April (iQE)
February 28, 2017	Examination results
March 7, 2017	International symposium "Corporate Expectations for Women PhDs"
March 15, 2017	pQE (periodic Qualifying Examination)
March 20, 2017	The 3rd Joint Meeting of Four Universities' Program for Leading Graduate Schools
March 24, 2017	Pre-Global Internship and Global Internship Report
March 29, 2017	Seminar with Prof. Chmielewski & Prof. Hrycyna (lecture for Department of Chemistry and the Program for Leading Graduate Schools)
March 31, 2017	Selection examination (2) (iQE)
April 14, 2017	Guidance for new students entering in April 2017
April 15, 2017	Open campus for the Graduate School
April 21, 2017	The first career support seminar in 2017

■ Information on offered lectures for Academic Year 2017 first term

April 10, 2017	Essential Mathematics for Global Leaders I
April 11, 2017	Essential Chemistry for Global Leaders I
April 11, 2017	Peace Education-Special lecture in Science and Technology for Global Leaders III
April 12, 2017	Essential Computer Science for Global Leaders I
April 12, 2017	Essential Engineering and Technology for Global Leaders II

■ Global Internship I & II (As of the end of March 2017)

Global Internship I

December 2016-April 2017	The University of Tokyo (Japan)
March 2017-June 2017	University of California, Davis (USA)

Global Internship II

November 2016-May 2017	Laboratory of Subatomic Physics & Cosmology, Grenoble (France)
January 2017-April 2017	Weathernews Inc. (Japan)
March 2017-June 2017	Chalmers University of Technology (Sweden)

Editor's notes

Launched in 2013, the program is now in its latter half of its run. Looking through the photos of the students now, there are less photos of them smiling compared to when the program first started, demonstrating how seriously involved they are as they concentrate on their work.

I look forward to the day in the future when they make their auspicious entries into the industry and reap the benefits of their current efforts, as they work actively in society.

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