World-leading Innovative Graduate Study Program (WINGS)
"Co-designing Future Society" (CFS), The University of Tokyo
2023 Spring Application Guideline

1. The idea of the educational program

Our vision for the future is a sustainable society in which everyone is freed from the fear of poverty, and has dignified and healthy life equally enjoyable, with human rights respected and equal. Adopted in September 2015 by UN 2030, the Agenda for Sustainable Development (2030 Agenda), with the aim of achieving a better future, has 17 sustainable development goals (SDGs) and 169 targets necessary to achieve these goals. The SDGs take into consideration not only developing countries but also developed countries, aiming a sustainable natural resource consumption and production that secures needs of the future generations while satisfying the needs of the current generation, urgent measures against climate change, and the pursuit of peace. It is an international aspiration that has been agreed upon among UN member states for the ultimate goal of a sustainable society where economic development, social justice, and environmental protection are harmonized through global partnerships based on the spirit of global solidarity.

We set goals based on clear vision as well as traditional (technology push) type innovation along with fundamental research of new technology, applied research, development, demonstration, and commercialization, and develop technology as needed. As new innovation efforts are needed, the demand-pull model of innovation which fulfills the needs of society is also being implemented. Nowadays that there are numerous debates on various issues causing increasing uncertainty related to the way how to solve them thus we should have the ability to understand these issues accurately and try to solve these issues which are closely related to society. For that purpose employing different means, such as the Internet of Things (IoT), Big Data, Robotics, and the development of various sciences and technologies, such as the rapid development and universalization of artificial intelligence are crucial, next to the reform of socio-economic systems, legal system regulation, and the search for products and services harmonized with people's lives. We need human resources that can promote discussions on the realization of a future society in which economic development, social justice, and environmental conservation are in harmony, by connecting experts in diverse fields and persons from industry, government, academia, and government.

In this program, we describe the ideal future, sometimes we lead ourselves to achieve it, and sometimes we draw on the strengths of our outstanding leaders in each field, seeking a co-creation with stakeholders to realize innovation / social change, train highly knowledgeable professional personnel who can realize implementation to the society. Going beyond "problem-solving human resources" who solve the problems that have emerged, logically draw a future society logically, and foster "co-designing future society human resources" who will lead the realization of innovation / social change by connecting related people. The purpose of this program is to foster a co-designing future society in human resources able to drive a co-creation with stakeholders through completing this program, who will participate in society as a member of research institutes members, and public organizations inside and outside the country, companies, civil organizations, and as entrepreneurs. We aim for providing these future leaders with experience and refine their qualities and innovative mindset.

2. Our vision on training human resources

Through these activities, we will develop human resources capable of developing their own expert knowledge and abilities to a higher level beyond their field of discipline. Who are leaders that excel in both

science and technology management and organizational management in the co-creation of a sustainable future society?

The vision of human resources we train in this program has specialized but open-for flexibility beyond their field and is a leader in the co-creation of a sustainable future society that excels in both science and technology management and organizational management. We want to train human resources who can draw a long-term vision and set goals, bring together the knowledge of diverse fields of science or humanities, and innovation. In particular, the program will be focused on areas that are expected to be major fields in the future, and are the most important fields in Japan, with a large ripple effect among SDGs.

3. Eligible students

Only 1st-year students of the master's course in any school/department of The University of Tokyo can apply for this program.

Attention: Because the number of 2nd-year students of the master's course currently reaches the maximum enrollment, recruitment for them has been suspended temporarily in the 2023 academic year.
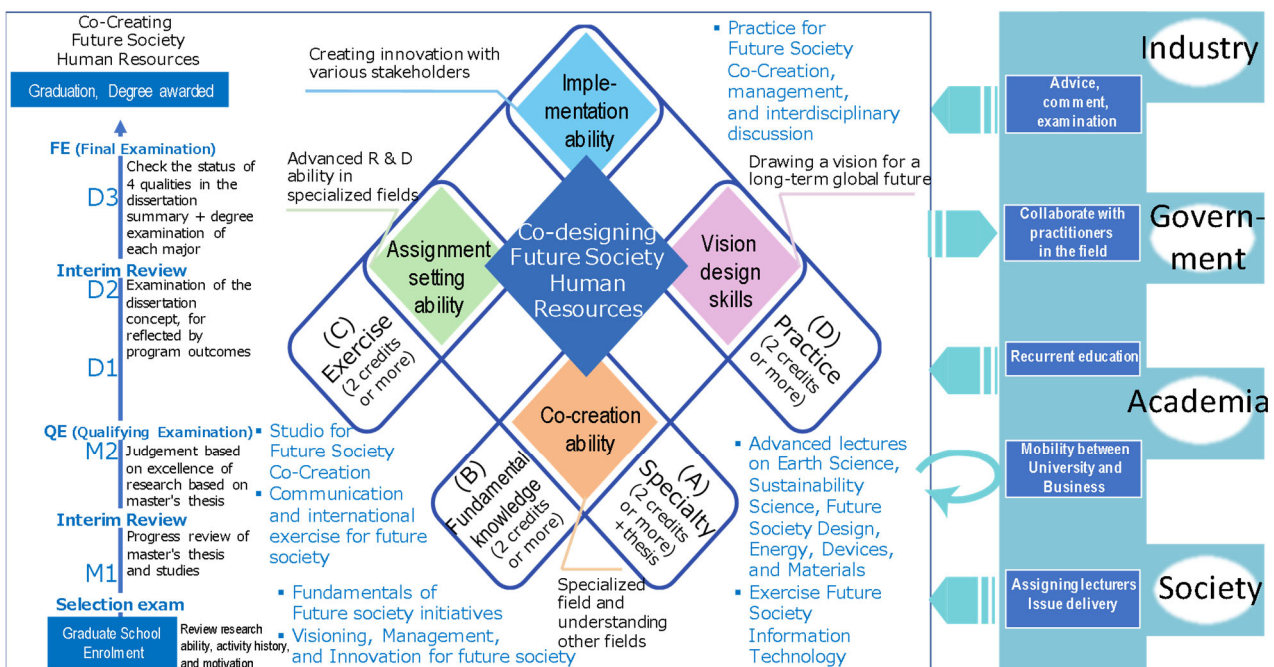
Students who apply for this program are required:

To enter the doctoral program of the University of Tokyo with the aim of obtaining a doctoral degree in the special field related to this program

To fully understand the objectives and requirements of the program

To apply for a JSPS Research Fellowship and pledge to continue to be enrolled in this program if accepted

* It is necessary for the students to be agreed about enrolment of this program by the affiliated graduate school and supervisor.

4. Curriculum overview

Co-designing Future Society human resources should obtain following qualifications, 1) vision design and communication skills, 2) ability to capture the issues of vision realization, 3) Consensus building for co-creation processes, and 4) implementation ability to execute the problem solution process and act toward social

transformation.

As no human resources can be an expert in all fields, considering the pace of knowledge diversification in the modern day, we aim to train human resources how to have the ability to apply expertise in different fields for co-creation, regardless of their background, in humanities or in sciences. Human resources for future social co-creation need to learn new values and qualities by pursuing goals through flexible collaborations. In order to acquire these qualities we selected a wide range of courses, from fundamental lectures, exercises, practical training, and specialized subjects.

For more details, please refer to the program homepage. (http://cfs.t.u-tokyo.ac.jp)

(1) Fundamental: Characteristic lectures of this program

> Fundamentals of Future Society Initiative
>
> Visioning of Future Society
>
> Management of Future Society
>
> Innovation for Future Society

(2) Exercise: Group work activities mainly within the university, such as project-based-learning

> Studio for Future Society Co-Creation
>
> Communication for Future Society
>
> International Exercise for Future Society Co-Creation

(3) Practical training: Activities outside the university, such as research internship

> Practice for Future Society Co-Creation
>
> Practice for Future Society Management
>
> Practice for Interdisciplinary Discussion
>
> International Practice for Future Society

(4) Specialization: Excellent understanding necessary for Creating Future Society human resources

> Advanced Earth Science
>
> Advanced Sustainability Science
>
> Advanced Future Society Design
>
> Exercise Future Society Information Technology
>
> Advanced Energy for Future Society
>
> Advanced Devices for Future Society
>
> Advanced Material Science for Future Society

Table 1. Courses and number of credits

Course name	Credits	Course method
Fundamentals of Future Society Initiative	2	Compulsory elective
Visioning of Future Society	2	
Management of Future Society	2	
Innovation for Future Society	2	
Studio for Future Society Co-Creation	2	
Communication for Future Society	2	
International Exercise for Future Society Co-Creation	2	
Practice for Future Society Co-Creation	2	
Practice for Future Society Management	2	
Practice for Interdisciplinary Discussion	2	
International Practice for Future Society	2	
Advanced Earth Science	2	
Advanced Sustainability Science	2	
Advanced Future Society Design	2	
Exercise Future Society Information Technology	2	
Advanced Energy for Future Society	2	
Advanced Devices for Future Society	2	
Advanced Material Science for Future Society	2	

5. Course requirements

➤ Earning 12 or more credits for the subjects listed in Table 1 through the master's program and doctoral program. In addition, the credits of the courses listed in Table 1 can be awarded by acquiring credits of substitute subjects.

➤ Receiving and pass the Qualifying Examination (QE), Final Examination (FE) and Interim Review (IR) of this program.

➤ Participate actively in WINGS events such as poster presentations.

➤ Completing requirements of each major (including passing the master's thesis examination and doctoral dissertation examination).

6. Qualifying Examination (QE), Final Examination (FE) and Interim Review (IR)

QE will be held in the second year of the master's program. From the viewpoint of research ability, ability for "Bird's-eye view" into problems, and appropriateness to this program, evaluating the midterm achievements, and oral examination on research background and motivation, research papers and project results.

FE will be implemented upon completing the doctoral course. The requirements for completing this program will be confirmed in appropriate time advancement. A review through the lens of training human resources will be conducted.

IR is an interim review conducted prior to QE and FE, and it will be conducted in accordance with QE and FE.

7. Research assistant

Students who are enrolled in this program can apply to the University of Tokyo Superior Research Assistant

(Superior RA), etc.

For outstanding master students and doctoral students, a 180,000 yen monthly remuneration as Superior RA will be offered under limitations of not receiving other scholarships, etc. Please refer to our HP for further details.

About half a year after enrolling in the program, students can apply for Superior RA. Progress of research and study will be reviewed, based on application forms and interviews, and employment of applicants to Superior RA will be decided. Expected applicants should keep in mind which courses in this program must be taken.

8. Schedule of selection and procedure of application

The schedule (planned) is as follows. Subject to change. Please check program's website for further information.

April 3, 2023 (Monday) 18: 00-19: 00	WINGS-CFS 2023 Spring Guidance (Venue: Lecture Room #221 in Eng. Bld. #2, Live streaming through ZOOM available)
April 11, 2023 (Tuesday) 23:59 (JST)	Submission deadline
April 18, 2023 (Tuesday) 17:00-21:00	Selection Interview (Online)
April 27, 2023 (Thursday)	Selection Results Announcement

Application documents can be downloaded from the program's website. Upload the completed application documents (electronic file) to the Upload Folder noticed in website.

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9. Program implementing organizations

Graduate School of Engineering

Graduate School of Humanities and Sociology

Graduate Schools for Law and Politics

Graduate School of Science

Graduate School of Agriculture and Life Sciences

Graduate School of Economics

Graduate School of Arts and Sciences

Graduate School of Education

Graduate School of Frontier Sciences

Graduate School of Information Science and Technology

Graduate School of Interdisciplinary Information Studies

Graduate School of Public Policy

Research Center for Advanced Science and Technology

Institute for Future Initiatives

10. Contact office

WINGS-CFS Office office@gmsi.t.u-tokyo.ac.jp