The University of Tokyo (National)
School of Engineering

◆ **Program name**

Department of Urban Engineering, Graduate Programs for International Students in Urban and Environmental Studies

◆ **Degrees:**

Master of Engineering

◆ **Credit and years needed for graduation:**

30 credits + thesis + final examination; 2 years

◆ **Address:**

7-3-1 Hongo, Bunkyo-ku, Tokyo 113-8656 Japan

Features of University http://www.u-tokyo.ac.jp/en/

The University of Tokyo, as a national university corporation, is committed to fulfilling its public responsibility through academic research and by fostering new talent, thus providing a reliable compass to the future. It goes without saying that the problems we face today and in our daily lives exist within the context of our mutual relations with other countries. The education and research activities of the University of Tokyo cannot be sustained without the involvement of the rest of the world, and we hope that the benefits of that research will be widely enjoyed by humanity at large. As society faces up to the challenges of today, so the University of Tokyo will bear its share of the burden through the creation of new academic value and the construction of diverse education and research programs. We will continue to concentrate our labors on reinforcing the academic foundations that make this challenge possible, and with this in mind, the University of Tokyo spreads its academic wings not just to the present and the future, but to the past as well. A determined effort to realize the future possibilities of knowledge, combined with a historically-tempered awareness of the accumulation of wisdom is the essential prerequisite for the creation of human knowledge. It is by focusing not just on scholarship for acclaim today, but by ensuring the sustenance and continued development of diverse disciplines that we can enrich the foundations of knowledge and nurture new sources of creativity.

For more details about the Data of UT, organization, educational activities, read the following URL

▸ http://www.u-tokyo.ac.jp/en/about/about.html

Features of Graduate School http://www.t.u-tokyo.ac.jp/soee/

One of the academic goals of the Graduate School of Engineering is the cultivation of talented individuals equipped with a systematic knowledge of science and technology, and an engineering mindset, capable of responsibly conducting research, development, planning, design, production, management, and policy formulation, in relation to engineering and its application. These engineering abilities are extremely necessary for the Philippines. A deeper purpose is to contribute to the sustainability and development of society through pioneering new frontiers in research and actively participating in research that may lead to new technological innovations.

The Graduate School of Engineering has 18 departments featuring principal engineering technology spanning a wide range of fields. The objective of graduate school education is the acquisition of a more advanced degree of engineering knowledge and research ability. In particular, future research and development is carried out autonomously in the doctoral program, with an aim to also acquire leadership ability. The practice of graduate school

education differs by department; however schooling by means of the development of special fields of study has become increasingly important on the master's program. Research at the Graduate School of Engineering is not just restricted to the "hard" studies centered on experimentation. Instead, diversity in the range of research fields is increasing with research concerning information, artificial intelligence, and CAD/CAM; research relating to the environment, disaster prevention, energy and urban social systems; and research into the interdisciplinary fields of life science and medicine which focus on the human. Research is conducted while maintaining a cooperative relationship with other fields of engineering, resulting in the pioneering and application of various new fields. Recently, society's deep concern regarding environmental problems has come to be reflected in research, with issues relating to society and the environment continuing to be stressed in every field of engineering.

The importance of the fields of Informatics and Life Sciences is continuing to increase, and problems that cannot be resolved within the traditional framework of engineering, such as those of environmental studies, are increasingly becoming the target of research. In order to respond to this age of borderless fields of study, more flexible forms of research structure are becoming necessary.

The Graduate School of Engineering is the largest graduate school at the University of Tokyo with almost a third of the overseas students studying at the university. Full and continuous support for overseas students is important, as is the further internationalization of Japanese students. At the Graduate School of Engineering, the concept of further internationalization in education and research, and specific policies based on it, are continuously scrutinized, and great effort is devoted to the enrichment of overseas student education and the expansion of international research exchange.

For more details about School of Engineering, read the following URL.
- http://www.t.u-tokyo.ac.jp/soee/index.html

Features of the Program http://www.due.t.u-tokyo.ac.jp/english/

The Department of Urban Engineering was established in 1962, and the Graduate School Programs started in 1966. Around 110 undergraduate students and 170 graduate students, including 50 international students, are currently enrolled.

The aim of the Department is to give students a definite background as an expert of planning, design and management of the urban community. The programs offered here are designed to help meet with the widespread needs for specially-educated manpower in urban planning and environmental engineering. The department is composed of an urban planning course and an environmental and sanitary engineering course. In both courses, a strong emphasis is placed on the studio and/or laboratory work.

(1) Urban Planning course
The aim of the course is to train the students for physical planners who have a comprehensive knowledge and an ability in various engineering fields required for urban planning such as civil engineering, architecture and building science, environmental engineering, social science, and data analysis. Intensive studio works are provided in which the students learn how to design building complexes, individual communities and regions. The studio works include collection of urban data, analysis of the collected data, projections of urban structures and construction of physical models.

(2) Urban Environmental Engineering course
Urban environmental engineers are responsible for controlling and managing water, air, solid waste and land resources and for preserving the quality of urban environments. The students in the course take studio works such as design of water or waste water treatment plants and environmental protection, and laboratory research such as water quality analysis, field survey for environmental pollution control, and experiments of hydrodynamics and water treatment.

About one third of the graduates enter the graduate course to continue their studies. One of the features of the Department is that fields open to graduates are broad and spreading to an international scope. About a half of the

graduates are working in the public sector, including the Ministry of Land, Infrastructure, Transport and Tourism and other ministries of the national government, various local governments, universities and research institutes. The other half are working for private companies such as planning and design consultants, general contractors, banks, insurance companies, trading companies and other industries.

Necessary Curriculum to Obtain the Degrees

Students can choose from the courses provided in the department including:

- Environmental Field Exercise
- Urban Environment and Health in Asia
- Advanced Course in Environmental Engineering Laboratory
- Urban Water Systems
- Fundamentals of Water Pollution Control
- Advanced Water Quality Engineering
- Advanced course in Health-related Water Microbiology
- Environmental Risk Management
- Advanced Course in Environmental Microbiology
- Environmental Reaction Kinetics
- Management of Global and Urban Environment
- Environmental Systems Analysis
- Systems and Tools toward a Sound Material-cycle Society
- Hazardous Waste Management
- Risk Management of Urban Flood Disaster
- Appropriate Technology for Environmental Sanitation
- Forefronts of Urban Environmental Projects
- Urban Development Policy and Planning
- Urban Planning in Developing Countries
- Urban Spatial Planning
- Advanced Course in Residential Environment
- Advanced Course in Urban Analysis
- Advanced Course in Urban Transport Policy
- Advanced Course in Urban Transport Planning and Analysis
- Regional Planning
- Regional Development Policy and Planning
- Global Urban Planning
- Urban Water Systems Management
- Research Proposal Technical Writing

(Courses offered in English in 2021)

List of faculty members capable of guiding JDS Fellows

Also see the links from:

- http://www.due.t.u-tokyo.ac.jp/english/lab/faculty/

Urban Planning Course

ASAMI, Yasushi
Professor, Ph. D.
Housing Policy, Habitation System Engineering, Spatial Structure of Residential Areas, Residential Environment

DEGUCHI, Atsushi
Professor, D. Eng.
Urban Design, Urban Redevelopment, Compact City, Area Management

HINO, Kimihiro
Associate Professor, Ph.D.
Urban Dwelling, CPTED (Crime Prevention through Environmental Design)

HIROI, U
Associate Professor, D. Eng.
Urban Disaster Mitigation, Risk Engineering

IIDA, Akiko
Project Assistant Professor, D. Eng.
Environmental Planning, Landscape Conservation

KATO, Takaaki
Professor, D. Eng.
Planning and Engineering for Social Safety System, Community-based Planning for Disaster Mitigation

KIDOKORO, Tetsuo
Professor, D. Eng.
International Development and Regional Planning, Urban Planning in Developing Countries

KOIZUMI, Hideki
Professor, D. Eng.
Urban Land Use Planning

MIYAGI, Shunsaku
Professor, Ph.D.
Urban Design, Landscape Design

MURAYAMA, Akito
Associate Professor, Ph.D.
Planning, Community Development, Planning Methodology

NAKAJIMA, Naoto
Associate Professor, Ph.D.
Urban Design, Theory of Urbanism, Planning History

SADAHIRO, Yukio
Professor, D. Eng.
Geographical Information Systems, Spatial Analysis

SETA, Fumihiko
Associate Professor, Ph.D.
National and Urban Planning, Regional Development, Global Cities

TAKAMI, Kiyoshi
Associate Professor, Ph.D.
Urban Transportation Planning, Integrated Planning of Transport and Land Use

TRONCOSO PARADY, Giancarlos
Project Assistant Professor, D. Eng.
Urban Transportation Planning, Traffic Behavior Analysis, Social Network Analysis

YOKOHARI, Makoto
Professor, Ph. D.
Landscape and Environmental Planning, Sustainable Landscape Planning

Urban Environmental Engineering Course

FUJITA, Tsuyoshi
Professor, D. Eng.
Regional SDGs, Environmental System, Regional Circular and Ecological System, Urban Industrial Symbiosis

FUKUSHI, Kensuke
Professor, Ph.D.
Hazardous Material Management, Risk Management, Regional Water Environment Management

FURUMAI, Hiroaki
Professor, D. Eng.
Conservation of Water Quality and Aqua-ecosystem, Urban Drainage and Diffuse Pollution, Modelling and Control of Biological Processes

HASHIMOTO, Takashi
Assistant Professor, D. Eng.
Water Treatment Technology, Water System in Asia

KASUGA, Ikuro
Associate Professor, D. Eng.
Environmental Microbiology, Biological Water/Wastewater Treatment

KATAYAMA, Hiroyuki
Professor, D. Eng.
Water Quality Public Health, Waterworks Engineering, Environmental Microbiology

KATO, Hiroyuki
Project Associate Professor, D. Eng.
Sewerage System, Water Environmental Policy and Business, Sewerage Resource Utilization

KAZAMA, Shinobu
Project Assistant Professor, D. Sc.
Environmental Virology, Water Environmental Engineering, Environmental and Sanitary Engineering

KURISU, Futoshi
Associate Professor, D. Eng.
Microbial Ecology for Environmental Engineering, Groundwater/Soil Remediation, Biological Water/Wastewater Treatment

KURISU, Kiyo
Associate Professor, D. Eng.
Pro-environmental Behavior, Environmental System Evaluation, Low Carbon Society, Waste Management

NAKAJIMA, Fumiyuki
Professor, D. Eng.
Ecotoxicity Evaluation, Water Chemistry, Contaminated Sediment Management

NAKATANI, Jun
Assistant Professor, D. Eng.
Life Cycle Assessment, Material Flow Analysis, Recycling System Design

OGUMA, Kumiko
Associate Professor, D. Eng.
Water Treatment Technologies, Water Supply Systems, Environmental Microbiology

ONUKI, Motoharu
Associate Professor, D. Eng.
Environment and Sustainability, Disaster and Sustainability, Sustainability Education

SATOH, Hiroyasu
Professor, D. Eng.
Environmental Microbiology, Environmental Chemical Analysis, Biological Wastewater Treatment

SHIBUO, Yoshihiro
Project Associate Professor, D. Eng.
Urban Hydrology, Watershed Environment Management, Water-related Disaster Risk Management

SYUTSUBO, Kazuaki
Professor, D. Eng.
Appropriate Wastewater Treatment, Anaerobic Digestion, Technology Evaluation and Implementation

TAKIZAWA, Satoshi
Professor, D. Eng.
Water Supply Engineering, Water and Wastewater Treatment

TOBINO, Tomohiro
Assistant Professor, D. Eng.
Biological Wastewater Treatment, Environmental Microbiology, Sewerage

Academic Schedule

Download the schedule for 2021 for your reference:
https://www.t.u-tokyo.ac.jp/shared/for_utstdnt/data/setcmm_20170616184130875881583 8_893095.pdf

Facilities

Housing Office: http://www.u-tokyo.ac.jp/en/administration/housing-office/index.html

The University of Tokyo offers accommodations for international students as part of our efforts to promote international exchanges in the education and research fields.
Two types of accommodation are available for international students at the university:
1. Residences operated by the University and apartments and flats rented by private businesses.
2. Residences operated by the University are available at lower rents than private accommodations and are furnished to the minimum level needed for students on arrival.

Each residence is highly motivated to promote international exchanges and pursue activities to encourage communication among residents.

Message for Applicants

Solving contemporary urban problems requires not only a deep, specialized knowledge of underlying core technologies, but also a general understanding of the working mechanisms behind a wide range of interrelated factors. Furthermore, the capacity to solve these problems might go beyond a single specialist's knowledge, making effective teamwork necessary to tackle issues from different perspectives. Our program provides a wide range of research and educational opportunities to learn these skills. We expect that students will help develop the field of urban engineering as we strive to enhance the future prosperity of our society.

For more detail, please visit the web site of the department at:
▶ http://www.due.t.u-tokyo.ac.jp/english/