

Program

Course A. Mitigation Strategy against Major Flood Disaster :

Get 12 credits or more out of the courses listed in the table. Get a credit of compulsory and 3 credits from core courses^{※1}

Course B. Recovery Design for Urban Sustainability

Get 12 credits or more out of the courses listed in the table. Get 5 credits of compulsory and 2 credits from core courses.^{※2}

Ver. 2016

Couese A	Course B	Semester	Year	Day/Hours	Subject	Instructor	credit	Dep.
Compulsory	-	S1,S2	Every Year	Intensive	Seminar on Flood Disaster Mitigation	Tajima, Kato, Sato Kuwamura,Otsuki	2	Common
Core	Recommend	A1	Every Year	Tue 4th	Flood Disaster Simulation	Tajima	2	Civil Eng.
Core	Recommend	A1,A2	Odd	Fri 2nd	Hydro-Resistant Building Structures	Kuwamura	2	Archi.
Core	Recommend	S1,S2	Even	Mon 2nd	Structural Reliability	Takada	2	Archi.
Core	Recommend	S2	Even	Fri 2nd	Regional Safety System(地域安全システム学)	Kato	1	Urban Eng.
Core	Recommend	S1, S2	Odd	Mon 2nd	Urban Disaster Management (都市防災特論)	Koide, Kato	2	Urban Eng.
Core	Recommend	S1, S2	Every Year	Mon2nd	Natural Disasters and urban Disaster Management	Meguro, Kiyota, Numata	2	Civil Eng.
Recommend	Recommend	S1, S2	Every Year	Mon 3rd	Advanced River Engineering	Chibana, Koike	2	Civil Eng.
Recommend	Recommend	S1, S2	Every Year	Thu 3rd	Advanced Hydrology	T.Oki, K. Oki Yoshimura,	2	Civil Eng. *Komaba cam.
Recommend	Recommend	S1, S2	Every Year	Fri 4th	Coastal Hydrodynamics	Shimozono	2	Civil Eng.
Recommend	Recommend	A2	Every Year	Mon 3rd	Fundamentals of Water Pollution Control	Furumai	1	Urban Eng.
Recommend	Recommend	A1, A2	Every Year	Tue 2nd	Advanced Course in Urban Design III	Kubota	2	Urban Eng.
Recommend	Recommend	A1	Every Year	Fri 4th	Risk Management of Urban Flood Disaster	Furumai, Fukushi, Katayama	1	Urban Eng.
Recommend	Recommend	S2	Even	Mon 1st	Appropriate Technology for Environmental Sanitation II	Shimazaki, Ohno, Asami	1	Urban Eng.
Recommend	Recommend	A2	Even	Wed 3-4th	Architectural Planning for Disaster	Otsuki	2	Archi.
-	Recommend	S1	Every Year	Tue 3rd	Disaster and Risk Management I E ^{※3}	Honda	2	Frontier Sci. *Kashiwa cam.
-	Recommend	S2	Every Year	Tue 3rd	Disaster and Risk Management II E ^{※3}	Honda	2	Frontier Sci. *Kashiwa cam.
-	Recommend	A1	Odd	Tue 4th	Mathematical Models for International Project Management I E ^{※3}	Honda, Hotta	2	Frontier Sci. *Kashiwa cam.
-	Recommend	A2	Odd	Tue 4th	Mathematical Models for International Project Management II E ^{※3}	Honda, Hotta	2	Frontier Sci. *Kashiwa cam.
-	Core	S1, S2	Every Year	Mon 6-7th	Urban Redesign Study	Guest speakers	2	Urban Eng.
-	Core	A1, A2	Every Year	Tue 3-4th	Architectural Design 1B/2B E ^{※4}	Nishide, Otsuki	4	Archi.
-	Compulsory	S1, S2	Every Year	Intensive	Colloquium for Master's Thesis E ^{※5} (修士研究のためのコロキウムE)	Hato, Honda Otsuki, Kubota etc.	1	Common
-	Compulsory	S1, S2	Every Year	Mon 3-5th	Urban Redesign Studio	Hato, Honda Otsuki, Kubota etc.	4	Common

※1 Required credits of Core subjects has changed to 3 since 2015.

※2 Required credits of Compulsory subjects has changed to 5 since 2015. For Course B, there is a Master's Thesis Presentation at the end of the course.

※3 Contact to Prof.Honda when you register the lectures. The term system in School of Frontier Science is different from School of Engineering.

※4 Please take 'Urban Redesign Studio (Architecture)' in this lecture.

※5 'Colloquium for Master's Thesis' cannot be registered without resistering 'Urban Redesign Studio'.

Transdisciplinary Education Program

Disaster Mitigation and Recovery Design

Course A.

Mitigation Strategy against Major Flood Disaster

Course B.

Recovery Design for Urban Sustainability

Admissions / Contact

Submit 'Application for Recognition of Disaster Mitigation and Recovery Design' to below after obtaining required credits and by 3 months before the course finishes.

Course A.

Mitigation Strategy against Major Flood Disaster

gensai@coastal.t.u-tokyo.ac.jp <http://coastal.t.u-tokyo.ac.jp/fdm/>

Course B.

Recovery Design for Urban Sustainability

fukko@bin.t.u-tokyo.ac.jp <http://bin.t.u-tokyo.ac.jp/dss/index.html>

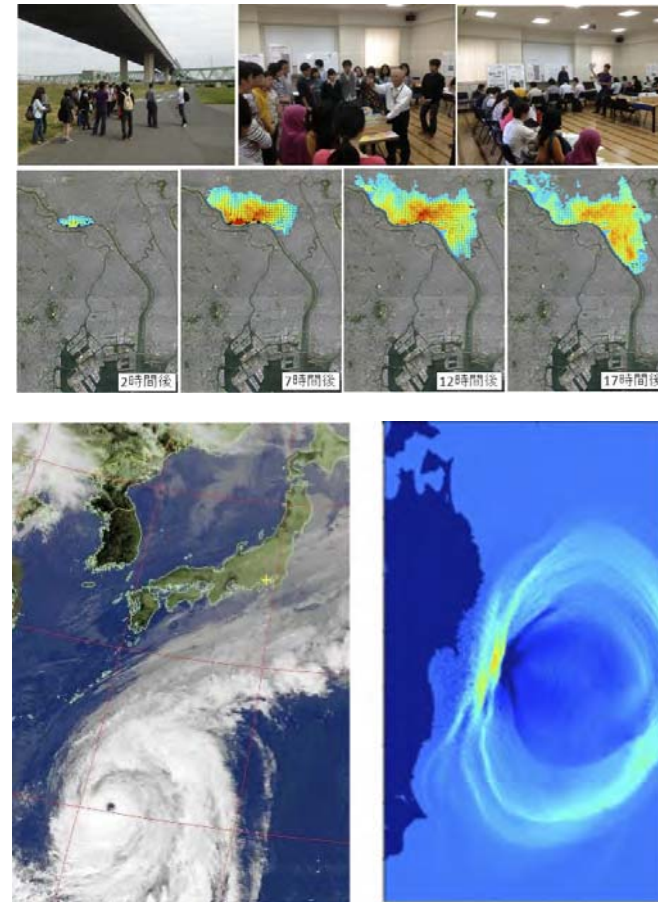
Disaster Mitigation and Recovery Design

This educational program is run by three departments, civil engineering, architecture and urban planning. Based on 'Transdisciplinary Education Program', students who received certain credits will be issued the certificate of this program. This certificate is an evidence to show that you have obtained enough knowledge and skills of mitigation and recovery of great disasters. Thus, students who have finished this program are expected to play a role as leaders base on two different phases, at the process of recovery after the disasters and also at daily bases.

This program was designed by faculties, who has worked to explicate the mechanism of great disaster or worked for actual recovery process after 2011 Tohoku Earthquake, who believe it important to invite professionals who can understand and act comprehensively for disaster mitigation and recovery. Through this program, students are expected to obtain abilities to redesign integrated mitigation and recovery strategies based on various special disciplines offered by departments of Civil Engineering, Architecture and Urban Engineering. This program is also part of the development of GCOE program 'Sustainable Urban Regeneration', specialized to disaster correspondence.

'Mitigation Strategy against Major Flood Disaster Program' has started in 2013, and combined with 'Recovery Design for Urban Sustainability Program' to become 'Disaster Mitigation and Recovery Design Program'. Both courses will offer certificate of this program, but one of them will be submitted.

Course A Mitigation Strategy against Major Flood Disaster



Introduction

Catastrophic disaster caused by the 2011 Tohoku Earthquake Tsunami highlighted the importance of integrated disaster mitigation strategies against such severe flooding events. Besides the inundation risk of future mega tsunami, such as the one threatened by Nankai Trough quake, climate change may also intensify the frequency and magnitude of torrential rainfall or super typhoons and may increase the risk of such extreme flooding events. Especially against such extreme flooding events, the present flood prevention works, such as levees and coastal dykes, may no longer be effective counter measures and thus development of integrated and feasible disaster mitigation strategies should be one of most urgent and essential tasks. Such integrated mitigation measures against intensive flooding events should also be important in other Asian countries who have near-shore low-land area with dense population and industries and have suffered various severe flooding disasters such as severe inundation due to the 2004 Indian Ocean Tsunami, storm surges due to Cyclone Sidr and Typhoon Haiyan.

As one of two parallel courses of this trans-disciplinary education program, Disaster Mitigation Strategy against Major Flood Disaster (Course A) aims to yield engineers who are capable of development of such integrated mitigation strategies especially against major flooding disasters based on various special disciplines offered by departments of Civil Engineering, Architecture and Urban Engineering.

Features of Course A

This course requires students to receive at least 12 credits from any of specified subjects listed in the Table, including i) Seminar on Flood Disaster Mitigation(2 credits) and ii) two core subjects (4 credits). After the defense of your master/doctoral thesis, the program asks you to repeat your presentation for the benefit of the students registered on the program. Certificates will be issued after the presentations. This course expects students not only to deepen their specialty but also to widen their view and knowledge related to disaster mitigation strategies throughout the course works in various special fields offered by three departments. Seminar on Flood Disaster Mitigation is the single compulsory subject of the course and aims to enhance interactions among students and faculties with different specialties through the group work to develop and propose practical and integrated disaster mitigation measures at certain specific case sites. This seminar offers unique opportunities for graduate students to exchange their ideas and knowledge from different specialties and disciplines.

Expecting career-path after completion of the program

Officials of international or domestic public agencies or engineers or project managers of private sectors, all of whom should have not only the keen specialty but also the capabilities to introduce various disciplines to practices with overview of the entire problems.

Faculty

Civil Engineering

Prof. Shinji Sato
Prof. Toshio Koike
Prof. Yoshimitsu Tajima

Architecture

Prof. Hitoshi Kuwamura
Prof. Toshio Otsuki

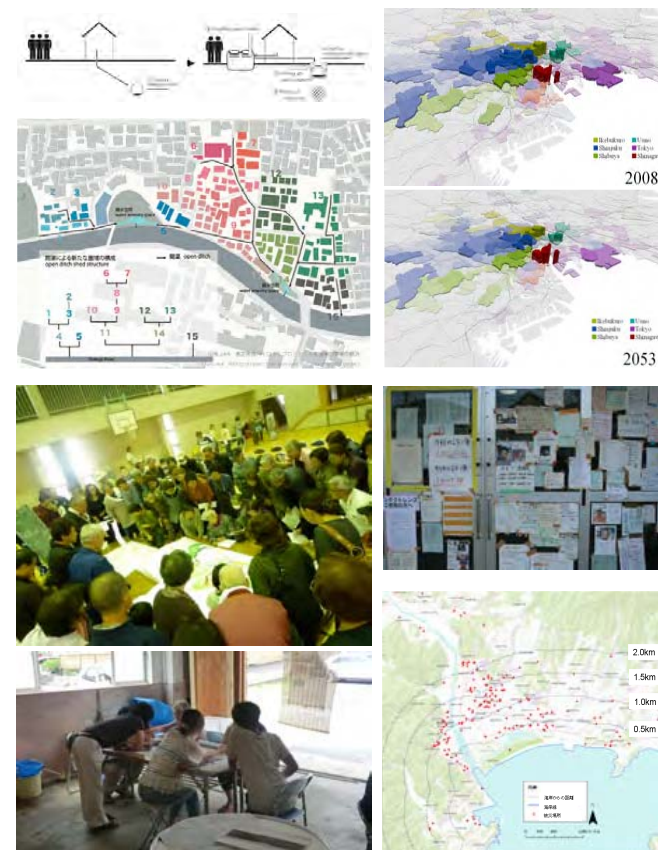
Urban Engineering

Prof. Osamu Koide
Prof. Hiroaki Furumai

Frontier Sciences

Prof. Kei Yoshimura
Prof. Takaaki Kato
Prof. Yoshiyuki Kawazoe

Course B Recovery Design for Urban Sustainability



Introduction

We can never expect the coming of any disasters and always participate in the phase either before or after. The issue of disasters bring up our awareness of the vulnerability of the environment we live in. We are not prepared for Paroxysm Risks such as earthquake or tsunami, and we are not prepared enough for Progressive Risks such as environment deterioration, as poverty or diversion of industry and population. 2011 Tohoku Earthquake was a point of us to recognize these situations.

To recover the living, we have to continue leaning from various fields and we also have to integrate the obtained knowledge and apply on practice.

Recovery Design for Urban Sustainability (Course B) aims to yield professionals who are capable of corresponding to such strategies at civil engineering, urban engineering and community levels, and collaborating with various stakeholders who are working at the sites.

Features of Course B

At Redesign Studio and Redesign Seminar in summer term of the first year, students will collaborate, discuss and exchange their ideas with other students from different backgrounds.

Redesign Studio is a compulsory subject of the course and aims to analyze the spatial transition of Before/Then/After the disaster and develop them to Redesign a recovery process at certain specific sites. Redesign Seminar is a core subject of the course and aims to understand the actual recovery process through practical projects. Officials from national and local governments are the main lecturers.

Colloquium for Master Studies is a compulsory subject held in summer term of the second year. In this class, students will depend on their own theme of master studies through presentation and discussion with other students from various areas.

Expecting career-path after completion of the program

All of those who is from urban planning engineers or designers or researchers of private sectors or universities, will collaborate with public sectors or community for recovery for disasters.

1st year : summer	1st year: winter	2nd year: summer	2nd year: winter
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CORE Subject Urban Redesign Study	CORE Subject Architectural Design 1B / 2B	CORE Subject Colloquium for Master's Thesis	Master's Thesis Study
Compulsory Subject Urban Redesign Studio			

Faculty

Civil Engineering

Prof. Eiji Hato
Prof. Yoshimitsu Tajima
Prof. Yu Nakai

Architecture

Prof. Toshio Otsuki
Prof. Manabu Chiba
Prof. Kaori Fujita

Urban Engineering

Prof. Aya Kubota
Prof. Noboru Harata
Prof. Yuichi Moriguchi

Frontier Sciences

Prof. Hiroshi Naito
Prof. Riki Honda
Prof. Akio Shimomura
Prof. Takashi Oguchi
Prof. Hidetoshi Ono



students who have finished this program will be submitted a certificate.