

◆ Postgraduate Program for Multinational Architects in Conjunction with Engineering and Urban Design

1. Program Outline

Our Department of Architecture and Building Engineering at Tokyo Tech originated in 1907 as part of the curriculum at Tokyo Tech's parent institution Tokyo Technical High School (i.e., Technische Hochschule) founded in 1881. The department is therefore one of the oldest university-level architectural schools in Japan. With its one-hundred-year history it enjoys a high reputation both within and outside Japan, a number of its graduates having become renowned architects, structural engineers or academics. This **International Graduate Program** is solely for master's students and is administered chiefly by the **Architectural Design Course** of the department. (NB: all Japanese architectural degrees are conferred in the form of an engineering qualification.)

2. Course Outlines and Faculty

The major concentration in this course is within architectural design (studio courses) and history and theory, with fieldwork broaching new architectural themes in an urban context.

3. Guide to Study in this Program

Requisite instruction to better understand Japanese megacities and the built environment throughout Japan will be offered in seminars that also include architectural tours. Instructors will assist and encourage students seeking to master these themes, and each student will be required to obtain 34 credits over two years of study and complete either a design diploma—or a written thesis in English—at the end of the second year.

4. Graduation Requirements

Department of Architecture and Building Engineering

【Master's degree】

- 34 credits or more from the Graduate school courses.
- Research Courses (研究科目群)
 - (1) 8 credits from the Seminar Courses. (講究科目)
- Courses by Departments (専門科目群)
 - (1) 12 credits or more from the Departmental Courses. (専攻専門科目)
- 2 credits or more from the Liberal Arts and General Education(G). (大学院教養・共通科目群)
- It passes master's-thesis examination and the final examination.

The minimum period of study is two years in total. Note that the above requirements are minimal and some additional requirements may be conditioned depending on the special course. All students are strongly advised to consult with their own supervisors about the study plan.

5. Faculty

Professors

Hiroyasu FUJIOKA, Dr. Eng.	History of Architecture, Architectural Design
Koichi YASUDA, Ph.D.	Architectural Design
Shin-ichi OKUYAMA, Dr. Eng.	Architectural Design
Kohji TOKIMATSU, Dr. Eng.	Geotechnical Earthquake Engineering
Toshiyuki OGAWA, Dr. Eng.	Steel and Shell Structures
Toru TAKEUCHI, Dr. Eng.	Steel Structure, Structural design, Seismic Control
Hiroyasu SAKATA, Dr.Eng.	Concrete Structure, Timber Structure

Fumihito MIYAMOTO, Dr. Eng.	School Building, Environmental Psychology
Yutaka YOKOYAMA, Dr. Eng.	Building Materials
* Shuji FUJII, Dr. Eng.	Environmental Engineering
* Toshihiro OSARAGI, Dr. Eng.	Architectural Planning, Spatial Analysis and Urban Studies

Associate Professors

Yoshiharu TSUKAMOTO, Dr. Eng.	Architectural Design and Urban Research
Taisuke YAMAZAKI, Dr. Eng.	History of Architecture, Architectural Design
Ryo MURATA, Dr.Eng.	Architectural Design and Environment Responsive Architecture
Haruyuki FUJII, Dr. Eng.	Design Science, Environmental Design Theories
Hisato HOTTA, Dr. Eng.	Composite Structure
Kazuhiro YUASA, Dr. Eng.	Environmental Engineering, Building Services
Kikuo IKARASHI, Dr. Eng.	Steel Structures
Shuji TAMURA, Dr.Eng.	Seismic Design of Piles, Soil-Structure Interaction
* Takamasa MIKAMI, Dr. Eng.	Concrete Engineering, Building Materials
* Naoko SAIO, Dr. Eng.	Architectural Planning
* Naoki KAGI, Dr. Eng.	Environmental Engineering

* Instructors who belong to other departments

Program Head: Prof. Koichi YASUDA <IGP @archi.titech.ac.jp>

6. Tables of Course Subjects

Research Courses (研究科目群)

Course Number	Remarks* (See footnotes)	Course	Department Offering course**	Credit	Chair	Semester S: Spring A: Autumn	Opening year a: Annually e: Even o: Odd
62701 62703	R	Seminar in Architectural design and Building Engineering (ABE) I, III	ABE	0-2-0	Academic Adviser	S	a
62702 62704	R	Seminar in Architectural design and Building Engineering (ABE) II, IV	ABE	0-2-0	Academic Adviser	A	a

*B: Basic, A: Applied, I: Interdisciplinary, R: Required, MP: Master's Program, DP: Doctoral Program

**ABE: Dept. Architecture and Building Engineering

Courses by Departments (専門科目群)

Course Number	Remarks (See footnotes)	Course	Department Offering course*	Credit	Chair	Semester S: Spring A: Autumn	Opening year a: Annually e: Even o: Odd
62005	B/A	History of Architecture	ABE	2-0-0	H.Fujioka	A	a
62003	B/A	Architectural Preservation and Renovation	ABE	2-0-0	T.Yamazaki	S	a
62033	B/A (1)	Theory of Architectural Design I	ABE	2-0-0	undecided	A	a
92029	B/A	Theory of Architectural Design II	BE	2-0-0	S. Okuyama	A	a
62007	B/A	Architectural Theory for Urban Space	ABE	2-0-0	Y. Tsukamoto	A	a
62006	B/A (2)	Architectural Detail	ABE	2-0-0	undecided	S	a
62053	B/A	Architectural Programming	ABE	2-0-0	K. Yasuda	S	a
62041	A	Theory of Architectural Space and Planning	ABE	2-0-0	Visiting Prof. from oversea	A	a
62063	A (2)	Modern Architecture in Japan	ABE	2-0-0	undecided	S	a
62062	A	Design and Technology	ABE	2-0-0	D.B.Stewart	A	a
22023	B/A	How Architects and Planners Improve Our Built Environment	SWC	2-0-0	D.B.Stewart	S	a
62068	B/A	Passive Solar Design	ABE	2-0-0	R.Murata	A	a
62056	B/A	Structural Planning in Architecture	ABE	1-0-0	T. Takeuchi	S	e
62054	A	Architectural design Studio I	ABE	0-0-2	Professors in Architectural Design Course	S	a
62055	A	Architectural design Studio II	ABE	0-0-2	Professors in Architectural Design Course	A	a
62061	☆	Architectural Tour	ABE	0-0-1	T.Yamazaki	During Spring Break	a
62059	☆	Architectural Workshop I	ABE	1-1-0	T.Yamazaki Y. Tsukamoto	A	a
62060	☆	Architectural Workshop II	ABE	1-1-0	K. Yasuda S. Okuyama	S	a

*B: Basic, A: Applied, I: Interdisciplinary, R: Required,

*(1) Due to be called off Autumn Semester, 2014

*(2) Due to be called off Spring Semester, 2015

*☆ The subject with this mark are solely for the students in the department of Architecture and building Engineering of International Graduate Program

**ABE: Dept. Architecture and Building Engineering

**BE: Dept. Built Environment

**SWC: Center for the Study of World Civilizations

Liberal Arts and General Education(G) (大学院教養・共通科目群)

	Remarks
International Communication (G) (大学院国際コミュニケーション科目) Interdisciplinary Courses (G) (大学院総合科目) Interdepartmental Courses (G) (大学院広域科目) Arts and Humanities (G) (大学院文明科目) Career Development Courses (G) (大学院キャリア科目) Courses for Developing Creativity (G) (大学院創造性育成科目) Courses for International Students (G) (大学院留学生科目)	Refer to VI.Liberal Arts and General Education

7. Syllabus of Course Subjects

62005

History of Architecture

Autumn Semester (2-0-0) :

Prof. Hiroyasu Fujioka

This class is a series of lectures and discussions on some topics in the history of Japan's modern architecture focusing the relationship between architectural discourses and designs: what Japanese architects have thought about and tried to express their "tradition"; what the idea of "space" have changed architectural thinking among Japanese architects; etc.

62003

Architectural Preservation and Renovation

Spring Semester (2-0-0)

Associate Prof. Taisuke Yamazaki

Architectural preservation is a rather new theme in Japan except for the national government's activities concerning Cultural properties. This course offers an insight on the history of architectural preservation in Japan, and on the theory and practice of preservation activities, giving the students the chance to tour some good examples of architectural preservation in Tokyo district.

1. History of Architectural Preservation in Modern Japan
2. Theory of Architectural Preservation
3. Practice of Architectural Preservation

62033

Theory of Architectural Design I

Autumn Semester (2-0-0) : Due to be called off Autumn Semester, 2014

In designing a piece of architecture, it is not only the drawing techniques and attractive forms that are important, but the architectural thoughts concerning design methods, theories and insights into its surroundings, are indispensable. The Design Course looks into such ways of thinking as well as design techniques. In this course, architectural thoughts regarding designing, shapes, environments and social position of the architect, etc. will be discussed.

1. Methodology of Architectural Composition
2. Topics Concerning Architecture and the City
3. Critique of the Recent Works

92029

Theory of Architectural Design II

Autumn Semester (2-0-0)

Prof. Shin-ichi Okuyama

In designing a piece of architecture, it is not only the drawing techniques and attractive forms that are important, but the architectural thoughts concerning design methods, theories and insights into its surroundings, are indispensable. The Design Course looks into such ways of thinking as well as design techniques. In this course, the works and theory by Kazuo Shinohara, who was one of the most influential Japanese architect in both within and outside Japan, and used to teach from 1950's to 1980's at Tokyo Tech, is taken up for the subject matter firstly. And next, practical design work for a detached house is assigned through the analysis of works and theories of Kazuo Shinohara.

1. Key Ideas and Notions Regarding Architectural Design
2. Texts on the designs of houses by Japanese Architects after the War
3. Analyses of the Present Situation Surrounding Architectural Design

62007

Architectural Theory for Urban Space

Autumn Semester (2-0-0)

Associate Prof. Yoshiharu Tsukamoto

To talk about architecture is very important for a better architectural design because verbalization is an act to let one think about what he/she is designing more clearly. To visualize ideas and designs of architecture one needs some frames to help him/her realize what needs to be seen. This course is for practicing such ways of thinking with examples of architectural critiques on the latest works.

1. Methods of Architectural Critique
2. Various Approaches to Architecture and its Surroundings
3. Analyses of the Recent Architectural Critics in the Architectural Media

62006

Architectural Detail

Spring Semester (2-0-0) : Due to be called off spring Semester, 2015

A building comprises of various parts. It is a combination of different types and sizes of materials. To put together in a proper or interesting way is one of the key factors in the construction of a good building. Thus, architectural details are an essential part of architectural design. This course offers the methods of composing elements and its relationship with design.

1. Architectural Details for Design
2. Traditional Ways of Japanese Architecture
3. Essence of Detail Technique Based on Modern Technology.

62053

Architectural Programming

Spring Semester (2-0-0)

Prof. Koichi Yasuda

For the smooth proceeding of an architectural project, careful and well-combined procedures should be undertaken. This course teaches important planning and building stages from its preparatory phases to the design and construction processes. Some specialists on this subject will be invited to share their experiences with the students.

1. From the Start of a Project to its Completion
2. Arrangement and Analysis of the Clients needs, The Method of its Visualization and Construction Management
3. Specialists Views

62041

Theory of Architectural Space and Planning

Autumn Semester (2-0-0)

Visiting Professor from overseas

Intensive course conducted by a professor from overseas. It can be a design studio, a series of lectures or a workshop depending on the visiting professor in charge. In 2010, the influential architect in East Asia, Minsuk Cho from South Korea was in charge of the class and in 2011, Professor Li Xiangning at Tongji University, Shanghai, China was in charge of the class. In 2012, Professor Rene Kural at the Royal Academy of Fine Art in Denmark was in charge of the class.

62063

Modern Architecture in Japan

Spring Semester (2-0-0) : Due to be called off Spring Semester 2015

In this seminar, several topics regarding architectural thoughts and design in Japan, not only new but also old, are to be presented and discussed to help better understand the current Japan's architectural scene.

62062**Design and Technology**

Autumn Semester (2-0-0)

Prof. David B. Stewart

This weekly seminar presents and analyzes various recent and contemporary case studies in building and city planning. The course language is English and regular attendance is strongly encouraged. The approach is both theoretical and visual and should appeal to architectural students. However, interested students from any field are most welcome and there are no prerequisites. Teaching style is interactive and will include student presentations. This is not a lecture course and is based on discussion and active participation. We hope to find out and theorize the ways in which building and urban design make for a better life experience in Today's cities worldwide.

22023**How Architects and Planners Improve Our Built Environment**

Spring Semester (2-0-0)

Prof. David B. Stewart

Our seminar analyzes various building and city planning issues (drawn, written or built) as case studies. The course language is English and regular attendance is required. The theoretical and visual approach is architecture-based but students from different majors are also welcome to engage ways in which the profession seeks a better life experience in today's cities worldwide

62068**Passive Solar Design**

Autumn Semester (2-0-0)

Associate Prof. Ryo Murata

Passive Solar Design is the methodology of architectural design with the consideration to building environmental engineering. In this class, these theories and practices are widely discussed by analysis of passive and low energy architecture through historical and contemporary examples.

62056**Structural Planning in Architecture**

Spring Semester (1-0-0) , held in even-numbered year only

Prof. Toru Takeuchi

Structural design based on the latest developments in structural engineering is hardly grasped by architects; it belongs to engineers in the field. This lecture is for the students in the Design Course to help them understand what leading structural engineers think and help develop ability to discuss structural engineering with its specialists.

1. Modeling of a structure
2. Characteristics of structural systems
3. Review of the Methods of Analysis

62054, 62055**Architectural Design Studio I , II**

Each in Spring and Autumn Semesters respectively (0-0-2×2)

Professors in the Architectural Design Course

Each student is to submit a drawing with concepts for a proposed assignment issued by the professors in Design Course. Discussion with instructors and colleagues are welcomed.

62701, 62702, 62703, 62704**○Seminar in Architectural Design and Building Engineering I , II , III , IV**

Each in Spring and Autumn Semesters respectively (0-2-0×4)

Professors in the Architectural Design Course

An instructor is designated to each student as an academic advisor. With an agreement by both, each student does research and field work, or design practice on an assigned theme.

62061

※ **Architectural Tour**

During Spring Break (0-0-1)

Associate Prof. Taisuke Yamazaki

A tour to visit famous buildings and sites in Japan for a week for better understanding of Japanese architecture and culture; Kyoto and Nara will be its locations.

62059

※ **Architectural Workshop I**

Autumn Semester (1-1-0)

Associate Prof. Yoshiharu Tsukamoto and Associate Prof. Taisuke Yamazaki

Needed information to grasp an understanding for traditional architecture and cities in Japan and methods to analyze modern architecture and cities in Japan are offered with tours.

62060

※ **Architectural Workshop II**

During summer break (1-1-0)

Prof. Koichi Yasuda and Prof. Shin-ichi Okuyama

Design practice at an architectural firm in Tokyo, Japan with tours to several renowned architectural firms.

○ **Diploma**

Spring Semester (0-0-0)

All members of the faculty

Choosing a theme, each student is to make a design presentation for master course diploma.

The subjects with “○” on the title are mandatory.

The subjects with ※ on the title are solely for the students in the Department of Architecture of the International Graduate Program.