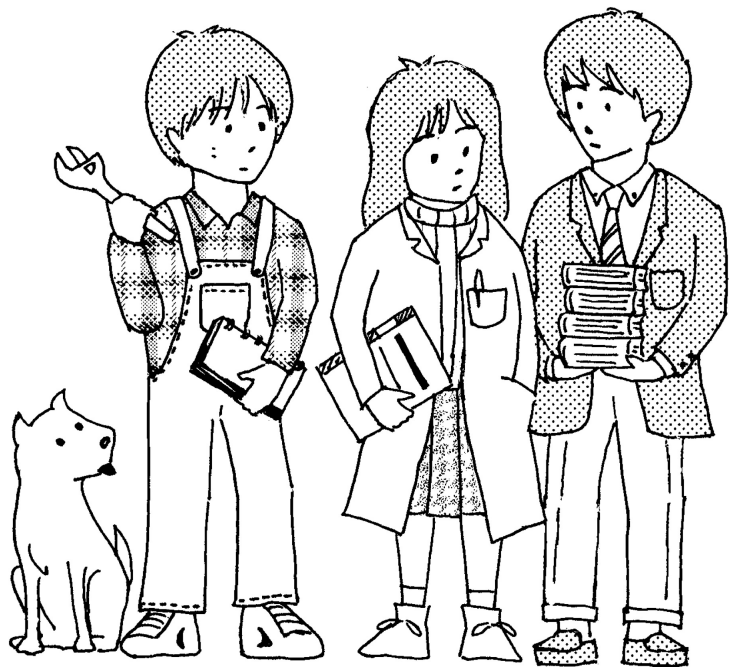


# *SYLLABUS*

2011

[B] Architecture



Kyoto University, Faculty of Engineering

# [B] Architecture

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## Exercises in Information Processing Basics

基礎情報処理演習

【Code】 230104 【Course Year】 1st year 【Term】 1st term 【Class day & Period】 【Location】 【Credits】 1

【Restriction】 No Restriction 【Lecture Form(s)】 Seminar 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

Theme	Class number of times	Description
	2	
	1	
	4	
	6	
	1	

【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

## Information Processing Basics

基礎情報処理

【Code】 22012 【Course Year】 1st year 【Term】 2nd term 【Class day & Period】 【Location】 【Credits】 2

【Restriction】 No Restriction 【Lecture Form(s)】 Lecture 【Language】 【Instructor】 Tetsutaro UEHARA

【Course Description】 This lecture covers the basics of computers and networks. In particular, data processing and programming are lectured in order to learn the basic knowledge which will be useful for you future research in architectural engineering (Computer Education Group II subjects).

【Grading】 You'll be graded mainly by the result of the final exam. The lecturer also request to submit some reports including "minute papers" to answer a short question at the and of each lecture.

【Course Goals】 B1 scientific problem-solving skills, D1 ability to identify and resolve issues, D2 acquire creative perspective

### 【Course Topics】

Theme	Class number of times	Description
Architectural engineering and Information and Communication Technology	1	
The architecture of computers	1	
Digital Expression of Information	2	
System Softwares	1	
Algorithm, Data structures and Programming	4	
Communication Technology and the Internet Technology	3	
The principles of Information Security	2	
Information Ethics	1	

【Textbook】 None: The resumes will be provided in each lecture.

【Textbook(supplemental)】 Shinji Tomita, Yasuo Fujii "Information Society and Computers," (Shokodo) ISBN 4-7856-3153-8 (in Japanese)

【Prerequisite(s)】

【Web Sites】 <http://uehara.tetsutaro.jp/?literacy>

【Additional Information】 The lecture will be provided in Japanese.

# Introduction to Architectural Engineering

建築工学概論

【Code】 40510 【Course Year】 【Term】 2nd term 【Class day & Period】 【Location】 【Credits】 2

【Restriction】 No Restriction 【Lecture Form(s)】 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

Theme	Class number of times	Description
	4	
	3	
	3	
	4	

【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

**History of Japanese Urban Space**

日本都市史

【Code】 40570 【Course Year】 1st year 【Term】 1st term 【Class day &amp; Period】 【Location】 【Credits】 2

【Restriction】 No Restriction 【Lecture Form(s)】 Lecture 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

<b>Theme</b>	<small>Class number of times</small>	<b>Description</b>
	1	
	4	
	3	
	1	
	2	
	2	

【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

**History of World Architecture**

世界建築史

【Code】40640 【Course Year】 【Term】2nd term 【Class day &amp; Period】Mon 3rd 【Location】 【Credits】2

【Restriction】No Restriction 【Lecture Form(s)】Lecture 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

<b>Theme</b>	<small>Class number of times</small>	<b>Description</b>
	8	
	4	
	1	

【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】



**Atelier Practice of Architectural Design, Basis**

設計演習基礎

【Code】40610 【Course Year】1st year 【Term】2nd term 【Class day &amp; Period】 【Location】 【Credits】2

【Restriction】No Restriction 【Lecture Form(s)】Seminar 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

Theme	Class number of times	Description
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【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

**Architectural Planning I**

建築計画学 I

【Code】 40050 【Course Year】 【Term】 2nd term 【Class day &amp; Period】 【Location】 【Credits】 2

【Restriction】 No Restriction 【Lecture Form(s)】 Lecture 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

<b>Theme</b>	<small>Class number of times</small>	<b>Description</b>
	1	
	1	
	1	
	1	
	1	
	2	
	2	
	2	
	1	
	1	
	1	

【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

**Housing Design**

住居計画学

【Code】40060 【Course Year】2nd year 【Term】2nd term 【Class day &amp; Period】 【Location】 【Credits】2

【Restriction】No Restriction 【Lecture Form(s)】Lecture 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

<b>Theme</b>	Class number of times	<b>Description</b>
	1	
	3	
	2	
	2	
	2	
	2	
	2	

【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

**Architectural Design Method**

建築設計論

【Code】40160 【Course Year】2nd year 【Term】1st term 【Class day &amp; Period】 【Location】 【Credits】2

【Restriction】No Restriction 【Lecture Form(s)】Lecture 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

Theme	Class number of times	Description
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【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

**Atelier Practice of Architectural Design I**

設計演習 I

【Code】40070 【Course Year】2nd year 【Term】1st term 【Class day &amp; Period】 【Location】 【Credits】2

【Restriction】No Restriction 【Lecture Form(s)】Seminar 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

<b>Theme</b>	<small>Class number of times</small>	<b>Description</b>
	14	
	14	
	14	

【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

**Atelier Practice of Architectural Design II**

設計演習 II

【Code】40080 【Course Year】2nd year 【Term】2nd term 【Class day &amp; Period】 【Location】 【Credits】2

【Restriction】No Restriction 【Lecture Form(s)】Seminar 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

<b>Theme</b>	<small>Class number of times</small>	<b>Description</b>
	7	
	7	

【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

**Environmental Engineering of Architecture I**

建築環境工学 I

【Code】 40090 【Course Year】 【Term】 1st term 【Class day &amp; Period】 【Location】 【Credits】 2

【Restriction】 No Restriction 【Lecture Form(s)】 Lecture 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

<b>Theme</b>	Class number of times	<b>Description</b>
	2	
	2	
	3	
	5	
	3	

【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

**Environmental Engineering of Architecture II**

建築環境工学 II

【Code】40100 【Course Year】2nd year 【Term】2nd term 【Class day &amp; Period】 【Location】 【Credits】2

【Restriction】No Restriction 【Lecture Form(s)】Lecture 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

<b>Theme</b>	Class number of times	<b>Description</b>
	2	
	3	
	1	
	3	
	4	

【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】



**Mechanics of Building Structures I**

建築構造力学 I

【Code】40110 【Course Year】2nd year 【Term】1st term 【Class day &amp; Period】 【Location】 【Credits】2

【Restriction】No Restriction 【Lecture Form(s)】Lecture 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

<b>Theme</b>	Class number of times	<b>Description</b>
	2	
	3	
	4	
	5	

【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

## Mechanics of Building Structures II

建築構造力学 II

【Code】40120 【Course Year】2nd year 【Term】2nd term 【Class day & Period】 【Location】 【Credits】2

【Restriction】No Restriction 【Lecture Form(s)】 【Language】 【Instructor】

【Course Description】 Axial deformation of a bar and bending deformation of a beam. Statically determinate truss and moment-resisting frame. Theory of statically indeterminate beams and buckling of columns. Force method and displacement method (stiffness method) are described in the theory of statically indeterminate beams. Exercises are given appropriately.

【Grading】 Term examination

【Course Goals】 Study analysis method of bending deformation of beams and theory of statically indeterminate beams. In addition study the theory of statically determinate truss and moment-resisting frame and the theory of buckling of columns.

【Course Topics】

Theme	Class number of times	Description
Axial deformation of a bar and bending deformation of a beam	2-3	Differential equation for deflection curve of a beam and Mohr ' s theorem for deflection analysis.
Theory of statically indeterminate beams 1	3	Force method in terms of unknown stress resultants and reactions.
Theory of statically indeterminate beams 2	3	Displacement method in terms of unknown displacements.
Statically determinate truss and frame	2	Analysis of stress resultants.
Buckling of column	3	Governing equation. Eigenvalue analysis. Slope-deflection method for buckling analysis.

【Textbook】 T.Nakamura (ed.) ' Mechanics of building structures I: Illustrative description and exercises ' , Maruzen.

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】 Office hour: Friday 10:30-12:00.

## Construction Engineering and Management I

建築生産 I

【Code】 40210 【Course Year】 2nd year 【Term】 1st term 【Class day & Period】 【Location】 【Credits】 2

【Restriction】 No Restriction 【Lecture Form(s)】 Lecture 【Language】 【Instructor】

【Course Description】 Stakeholders and their roles in a building construction project will be explained, looking at the project process including project planning, architectural design, building construction, and maintenance.

【Grading】 Evaluated by Examination.

Accepted tasks, quiz, and attendance to the class will be considered.

【Course Goals】 Knowledge on building construction process.

B-B2.

【Course Topics】

Theme	Class number of times	Description
Introduction	1	
Construction market	1	
Building system	3	
Project planning	1	
Design in project process	2	
Design and engineering	1	
Project report	1	
Building codes and regulations	1	
Basic production system	5	

【Textbook】 Shuzo FURUSAKA: KENCHIKU-SEISAN, Published by Riko Tosho.

ISBN978-4-8446-0746-5

【Textbook(supplemental)】

【Prerequisite(s)】 Social science and economics taught in High School.

【Web Sites】

【Additional Information】

**Materials for Buildings**

建築材料

【Code】40130 【Course Year】2nd year 【Term】2nd term 【Class day &amp; Period】 【Location】 【Credits】2

【Restriction】No Restriction 【Lecture Form(s)】Lecture 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

Theme	Class number of times	Description
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【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

**Building and Urban Administration**

建築・都市行政

【Code】40430 【Course Year】2nd year 【Term】1st term 【Class day &amp; Period】 【Location】 【Credits】2

【Restriction】 【Lecture Form(s)】Lecture 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

<b>Theme</b>	<small>Class number of times</small>	<b>Description</b>
	1	
	2	
	3	
	3	
	1	
	1	
	1	
	2	

【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

## Computational Practice on Architectural Design and Engineering

建築情報処理演習

【Code】40590 【Course Year】2nd year 【Term】2nd term 【Class day & Period】 【Location】 【Credits】2

【Restriction】No Restriction 【Lecture Form(s)】 【Language】

【Instructor】Y. Uetani, Y. Onishi, M. Tsuji, A. Takizawa, Y. Horinouchi, and M. Yamakawa

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

Theme	Class number of times	Description
Guidance	1	
Introduciton of programming	4	
	4	
	1	
	4	
	1	

【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

**Engineering Mathematics C**

工業数学 C

【Code】21020 【Course Year】2nd year 【Term】2nd term 【Class day &amp; Period】 【Location】 【Credits】2

【Restriction】No Restriction 【Lecture Form(s)】Lecture 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

<b>Theme</b>	Class number of times	<b>Description</b>
	2 ~ 3	
	3 ~ 4	
	1	
	1 ~ 2	
	2 ~ 3	
	2 ~ 3	

【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

**Urban Design**

都市設計学

【Code】 40170 【Course Year】 【Term】 1st term 【Class day &amp; Period】 【Location】 【Credits】 2

【Restriction】 No Restriction 【Lecture Form(s)】 Lecture 【Language】

【Instructor】 Masami kobayashi, Hirohide Kobayashi

【Course Description】

【Grading】 Report Submission: 50%, Examination: 50%

【Course Goals】

【Course Topics】

Theme	Class number of times	Description
	4	
	3	
	4	
	2	
	2	

【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】



**Building Systems Design**

建築設備システム

【Code】 40180 【Course Year】 【Term】 1st term 【Class day &amp; Period】 【Location】 【Credits】 2

【Restriction】 No Restriction 【Lecture Form(s)】 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

<b>Theme</b>	<small>Class number of times</small>	<b>Description</b>
	1	
	3	
	4	
	2	
	3	
	2	

【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

**Reinforced Concrete Structure I**

鉄筋コンクリート構造 I

【Code】 40190 【Course Year】 【Term】 1st term 【Class day &amp; Period】 【Location】 【Credits】 2

【Restriction】 No Restriction 【Lecture Form(s)】 Lecture 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

Theme	<small>Class number of times</small>	Description
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【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

**Steel Structure I**

鉄骨構造 I

【Code】 40200 【Course Year】 【Term】 1st term 【Class day &amp; Period】 【Location】 【Credits】 2

【Restriction】 No Restriction 【Lecture Form(s)】 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

<b>Theme</b>	<small>Class number of times</small>	<b>Description</b>
	2	
	2	
	1	
	1	
	2	
	2	
	1	
	3	

【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

## Mechanics of Building Structures III

建築構造力学 III

【Code】 40220 【Course Year】 3rd year 【Term】 1st term 【Class day & Period】 【Location】 【Credits】 4

【Restriction】 No Restriction 【Lecture Form(s)】 Lecture 【Language】 【Instructor】

【Course Description】 Slope-deflection method and moment distribution method. Force method and displacement method (stiffness method). Matrix method for structural analysis. Principles of virtual work and energy methods. Fundamental theory of structural analysis and theory of plastic analysis of frames.

【Grading】 Term examination

【Course Goals】 Study force method, displacement method (stiffness method) and matrix method for structural analysis. In addition study slope-deflection method and theory of plastic analysis of frames.

【Course Topics】

Theme	Class number of times	Description
Fundamental theory of structural analysis and slope-deflection method	4	Frame analysis model and governing equation for slope-deflection method.
Moment distribution method	1	Moment distribution method without nodal lateral displacement.
Three-dimensional frame	2	Plane frames with equal horizontal displacements. Shear force distribution formula.
Displacement method and force method	8-9	Member stiffness matrix and system stiffness equation for truss and moment-resisting frame. Treatment of mid-span loads.
Principles of virtual work	4	Principle of virtual displacement. Unit virtual displacement method and stiffness method. Principle of virtual force. Unit virtual force method.
Principles of energy methods	3	Stationary and minimum principles of total potential energy and complementary energy.
Plastic limit analysis and elastic-plastic analysis	3	Plastic hinge, plastic collapse, virtual work equation, fundamental theorem for plastic limit analysis, plastic limit analysis of moment resisting frame.

【Textbook】 T.Nakamura (ed.) ‘ Mechanics of building structures II: Illustrative description and exercises ’ , Maruzen.

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】 Office hour: Before and after the class

## Behavior and Architectural Design Theory

行動・建築デザイン論

【Code】 40530 【Course Year】 3rd year 【Term】 1st term 【Class day & Period】 【Location】 【Credits】 2

【Restriction】 No Restriction 【Lecture Form(s)】 Lecture 【Language】 【Instructor】 Teruyuki Monnai

【Course Description】 This course gives the basic knowledge to design desirable architectural spaces for human beings by searching for the relationship between man and behavior. The following topics on scientific methods of man-environment studies are explained to such end; territorial behavior, behavioral setting, wayfinding, group behavior. Then we show various design practices based on these principles, and discuss the new architectural design theory using the behavioral theory based on cognitive science and semiotics.

【Grading】 by term-end examination

【Course Goals】 To understand the architectural and urban spaces from the viewpoint of human cognition and behavior and to learn basic design methods based on such understanding. B. technical and basic knowledge, B2. understanding of architectural planning and designing.

【Course Topics】

Theme	Class number of times	Description
Various Concepts on Human behavior and Environment	3	Man perceives environment based on diverse information such as form, color, movement, sound, and fragrance, acts in environment, reads environment as the significant world, and memorizes the place and landscape of environment. We explain such mechanism on perception, behavior, cognition, and memory in Man-Environment relations. Moreover we refer to the fundamental characteristics of human behavior including concept of identity and orientation, roundabout route, excursion characteristics, prospect and refuge, ordinary and extra-ordinary behavior.
Territorial Behavior and Behavioral Setting	3	We clarify the territorial behavior studied in proxemics such as personal space, crowding, neighborhood, and defensible space. Moreover we regard the combination of behavior and environment as behavioral setting, and explore the being of environment affording various human behaviors.
Spatial Orientation and Wayfinding Behavior	3	We consider the way of navigation based on the structural analysis of environmental image and cognitive map and explain the mechanism of wayfinding behavior and its simulation through the experiment in architectural and urban spaces.
Group Behavior and its Emergence	2	We explain the mechanism of collective behavior and its simulation. We also explore the emergence of macro group behavior from the interaction of micro subjects.
Behavior and Path Design	2	We analyze the various designs of behavior or path such as sequence landscape, front approach to a shrine, garden adjacent to a ceremonial teahouse, and Japanese garden with paths around ponds, and explain the notation systems of behavior and path developed in various design fields. Moreover we introduce the behavioral description based on time geography, and the effect of environmental transition on human behavior.
Perspective of behavior and Architectural Design theory	1	We give an outline of the relation among perception, cognition and behavior form the viewpoints of philosophy, phenomenology, gestalt theory, psychology, behavioral science, cognitive science, and semiotics. We also consider the possibility of behavior and architectural design in the broad contexts including the conservation and renewal of existing spaces, and cyber spatial design.

【Textbook】 using handout prints and slides

【Textbook(supplemental)】 Architectural Institute of Design (ed.), Man-Environment System Design, SHOKOKUSHA, 1997.

Architectural Institute of Design (ed.), Spatial Planning Theory for Architectural and Urban planning, INOUE SHOIN, 2002.

【Prerequisite(s)】

【Web Sites】

【Additional Information】 Please contact to the following e-mail; monnai@archi.kyoto-u.ac.jp

**History of Japanese Architecture**

日本建築史

【Code】 40580 【Course Year】 【Term】 2nd term 【Class day &amp; Period】 【Location】 【Credits】 2

【Restriction】 No Restriction 【Lecture Form(s)】 Lecture 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

Theme	Class number of times	Description
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【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

## Construction Engineering and Management II

建築生産 II

【Code】 40280 【Course Year】 3rd year 【Term】 2nd term 【Class day & Period】 【Location】 【Credits】 2

【Restriction】 No Restriction 【Lecture Form(s)】 Lecture 【Language】 【Instructor】

【Course Description】 Planning and management method in building construction project will be explained. Construction management and construction technology, integrated with information and communication technology, will be also explained with the latest project reports.

【Grading】 Evaluated by Examination.

Accepted tasks, quiz, and attendance to the class will be considered.

【Course Goals】 Basic knowledge on supervising and construction management.

C-C1.

【Course Topics】

Theme	Class number of times	Description
Introduction	1	
Planning and management	4	
Management method	2	
Construction management	5	
Project management and ICT	2	
Discussion	1	

【Textbook】 Shuzo FURUSAKA: KENCHIKU-SEISAN, Published by Riko Tosho.

ISBN978-4-8446-0746-5

【Textbook(supplemental)】

【Prerequisite(s)】 Requested to master "Construction Engineering and Management I" in advance.

【Web Sites】

【Additional Information】

**Theory of Architecture**

建築論

【Code】 40290 【Course Year】 【Term】 1st term 【Class day &amp; Period】 【Location】 【Credits】 2

【Restriction】 No Restriction 【Lecture Form(s)】 Lecture 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

<b>Theme</b>	<small>Class number of times</small>	<b>Description</b>
	1	
	6	
	1	
	7	
	1	

【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】



## Theory of Living Space in the Region

都市・地域論

【Code】40300 【Course Year】 【Term】2nd term 【Class day & Period】 【Location】 【Credits】2 【Restriction】No Restriction

【Lecture Form(s)】Lecture 【Language】 【Instructor】

【Course Description】

【Grading】Short homework(3times), Homework for Winter Holiday(1time), and the result of the Examination

【Course Goals】

【Course Topics】

Theme	Class number of times	Description
History of Modern City Planning	1	Overviewing the history of modern city planning and the trials of Utopian cities, and considering the meanings of them specially through how those trials have been inherited.
Building Control	1	Explaining the system of building control and urban development control by the building and City Planning regulation.
District Planning	1	Explaining the systems of the district planning, with a special focus on the local community's initiative and the systems' result and potential.
Spacial Structure of Villages and Cities	1	Understanding the attractive spacial structures of traditional villages and city areas, with a special concern with the method to find the spacial structures and those meanings.
Landscape Planning	1	Explaining the system of planning for the landscape conservation. Here we consider landuse and natural environment as well as the design of building. Understanding the regulation and also considering the way we can create the new and high-qualified designs under the regulation.
Land Use Planning	1	Understanding the system of land use planning including nature protection, parks and openspace, agricultural land use regulation, forestry land use regulation and city planning.
How to utilize Maps and Aerophotos	1	Explaining how to utilize maps, aerophotoes, old drawings, and other materials which shows us how a certain district has been transformed. This is an important and basic approaches to understand the meanings of each building site.
Parks and Openspaces	1	Explaining the planning systems for parks and openspaces. Specially we will focus on the ecological planning and also on the local community's participation.
Community and Planning for disaster prevention	1	Explaining the planning system for disaster prevention in the cities, with a special concern with traditional towns and villages mainly composed with wooden houses and narrow street system. We also focus on the roles of parks and openspaces for disaster prevention.
Planning for urban traffic	1	Explaining the updated planning tools for urban traffic, with a special concern with the TDM cases and the relation between traffic planning and old city revitalization.
Urban Development Projects	1	Explaining the systems of urban development projects such as the land readjustment project, the urban redevelopment projects and the new town development. We also focus on the recent problems of those systems.
Master Plan	1	Explaining the system and contents of master plan, with a special concern with the history of several master plans have been introduced.
Field Survey	3	We will visit the case study areas in Kyoto related to the subjects.

【Textbook】MIMURA Hiroshi, "Chiiki Kyosei No Toshi Keikaku" (Ver.3, 2005, Gakugeishuppan)

【Textbook(supplemental)】Additional Documents will be distributed during each lectures. Field Survey in Kyoto City Area will be held.

【Prerequisite(s)】

【Web Sites】

【Additional Information】Monday 16:15 -- 18:00, at 1st floor of KenchikuHonkan

## Urban Environment Engineering

都市環境工学

【Code】 40520 【Course Year】 【Term】 2nd term 【Class day & Period】 【Location】 【Credits】 2

【Restriction】 No Restriction 【Lecture Form(s)】 Lecture 【Language】

【Instructor】 Kazunori HARADA, Shuichi HOKOI, Yoshiaki UETANI

【Course Description】 In the urban area, buildings and public structures are densely located. Majority of human activities are carried out in relation with these structures. Consumption of energy and natural resources are deeply related with the interaction with activities and structures. In this course, lectures will be given on the state-of-the-art of energy and natural resource consumption in relation with urban structures, energy saving strategies, the concept of environmental friendly city/architecture.

【Grading】 Score is evaluated based on end-term examination and other materials.

【Course Goals】 The participants will be trained so that he/she will understand impact made by/to the buildings by/from urban environment with relation to the context of hierarchy structure of building / district / city / region / globe. Knowledge for designing better building and urban environmental system will be acquired. Corresponding goals for education of department are C) practical ability, C2) ability to understand societal role of building constructions.

### 【Course Topics】

Theme	Class number of times	Description
Global environment and sustainable development	2	
Explosion of urban area environmental impact	5	
Low impact city and buildings	4	
Green	1	
Solar lay and daylighting	2	
Post Kyoto	1	

【Textbook】 None specified. Handouts will be supplied on site.

【Textbook(supplemental)】 To be suggested during the course.

【Prerequisite(s)】 The participants are required to study Environmental engineering in Architecture I (40090) and II (40100) prior to join this course. In addition, the knowledge on Building Systems Design (40180) is desirable.

### 【Web Sites】

【Additional Information】 [Office hour] Opportunity for Q&A will be provided during the spare time before and after each lecture. Participants can make appointments for further questions.

**Lighting and Acoustics in Architecture**

建築光・音環境学

【Code】 40320 【Course Year】 3rd year 【Term】 1st term 【Class day &amp; Period】 【Location】 【Credits】 2

【Restriction】 No Restriction 【Lecture Form(s)】 Lecture 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

Theme	Class number of times	Description
	3	
	2	
	2	
	2	
	2	
	3	
	1	

【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

## Thermal Environment Design of Architecture

建築温熱環境設計

【Code】 40600 【Course Year】 3rd year 【Term】 2nd term 【Class day & Period】 【Location】 【Credits】 2

【Restriction】 No Restriction 【Lecture Form(s)】 Lecture 【Language】

【Instructor】 Shuichi HOKOI, Kazunori HARADA, Daisuke OGURA

【Course Description】 In this course, basic concepts for controlling thermal environment of daily habitation space such as especially dwellings. Practical methods for pasive thermal environment control is described.

【Grading】 Score is evaluated based on end-term examination and other materials.

【Course Goals】 The participants will be trained so that he/she can develop conceptual design of passive controlling elements and their combination for use in dwellings. Corresponding goals for education of department are C: Practical skills, C1: Capability in Realize Building Projects.

【Course Topics】

Theme	Class number of times	Description
introduction - climate and buildings	2	
utilization of heat capacity	2	
benefits and risk of moisture	2	
thermal system of human body	1	
insulation of building envelope	2	
solar shading and utilization	2	
cross ventilation	3	
ndoor air quality	1	

【Textbook】 None specified. Handouts will be supplied on site.

【Textbook(supplemental)】 To be suggested during the course.

【Prerequisite(s)】 The participants are required to study Environmental engineering in Architecture I (40090) and II (40100) prior to join this course.

【Web Sites】

【Additional Information】 [Office hour] Opportunity for Q&A will be provided during the spare time before and after each lecture. Participants can make appointments for further questions.

**Analytical Methods of Building Structures**

建築構造解析

【Code】 40340 【Course Year】 【Term】 2nd term 【Class day &amp; Period】 【Location】 【Credits】 2

【Restriction】 No Restriction 【Lecture Form(s)】 Lecture 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

<b>Theme</b>	<small>Class number of times</small>	<b>Description</b>
	6	
	7	

【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

**Earthquake Resistant Structures**

耐震構造

【Code】 40360 【Course Year】 【Term】 2nd term 【Class day &amp; Period】 【Location】 【Credits】 2

【Restriction】 No Restriction 【Lecture Form(s)】 Lecture 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

<b>Theme</b>	<small>Class number of times</small>	<b>Description</b>
	1	
	6	
	3	
	2	
	3	

【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

**Reinforced Concrete Structure II**

鉄筋コンクリート構造 II

【Code】 40370 【Course Year】 【Term】 2nd term 【Class day &amp; Period】 【Location】 【Credits】 2

【Restriction】 No Restriction 【Lecture Form(s)】 Lecture 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

Theme	<small>Class number of times</small>	Description
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【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

**Steel Structure II**

鉄骨構造 II

【Code】 40380 【Course Year】 【Term】 2nd term 【Class day &amp; Period】 【Location】 【Credits】 2

【Restriction】 No Restriction 【Lecture Form(s)】 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

Theme	<small>Class number of times</small>	Description
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【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】



**Atelier Practice of Architectural Design III**

設計演習 III

【Code】40390 【Course Year】3rd year 【Term】1st term 【Class day &amp; Period】 【Location】 【Credits】3

【Restriction】No Restriction 【Lecture Form(s)】Seminar 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

<b>Theme</b>	<small>Class number of times</small>	<b>Description</b>
	12	
	12	

【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

**Atelier Practice of Architectural Design IV**

設計演習 IV

【Code】40400 【Course Year】3rd year 【Term】2nd term 【Class day &amp; Period】 【Location】 【Credits】3

【Restriction】No Restriction 【Lecture Form(s)】Seminar 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

Theme	<small>Class number of times</small>	Description
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【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

## Applied Mathematics for Architecture

建築応用数学

【Code】 40540 【Course Year】 3rd year 【Term】 1st term 【Class day & Period】 【Location】 【Credits】 2

【Restriction】 No Restriction 【Lecture Form(s)】 【Language】 【Instructor】 Katoh, Hokoi, Takahashi, Kawase

【Course Description】 Applied Mathematics required for understanding architecture such as architectural planning, structural design, environmental design is taught. It is aimed that students will acquire the ability to understand and analyze the architecture from mathematical viewpoint.

【Grading】 Final examination

【Course Goals】 Ordinary and partial differential equations, integral transform, probability theory and statistics, calculus of variation

【Course Topics】

Theme	Class number of times	Description
Ordinary and partial differential equation	3 ~ 4	General method to solve ordinary differential equations is explained.
integral transform	4 ~ 5	Fourier transform and Laplace transform are explained.
probability theory and statistics	2 ~ 3	Fundamentals of probability and Markov process are taught. Also, statistical methods such as regression analysis are taught.
calculus of variation	2 ~ 3	

【Textbook】 Katoh, Hokoi, Takahashi, Ohsaki, Mathematics for architectural engineering, (in Japanese) Asakura shoten, 2007

【Textbook(supplemental)】

【Prerequisite(s)】 Calculus, mathematical statistics and industrial mathematics are prerequisite.

【Web Sites】

【Additional Information】 Please contact teachers in advance when you have questions.

## Architectural Information Systems

建築情報システム学

【Code】 40550 【Course Year】 3rd year 【Term】 1st term 【Class day & Period】 【Location】 【Credits】 2

【Restriction】 No Restriction 【Lecture Form(s)】 【Language】 【Instructor】 Katoh

【Course Description】 Architecture is modeled as mathematical system, and then methods for analyzing and designing it are taught. Applications of system engineering and information engineering to architecture are explained.

【Grading】 Final exam 70% and intermediate reports 30%

【Course Goals】 The aim is that students learn the fundamentals of mathematical programming, combinatorial optimization, optimal location theory, and data mining and develop the ability of applying the methods.

【Course Topics】

Theme	Class number of times	Description
Overview of architectural information system	1	
Applications of mathematical programming	4 ~ 5	
Applications of combinatorial optimization	3	
Applications to architectural and urban planning	3	
Data analysis and its applications	3 ~ 4	

【Textbook】 Katoh, Ohsaki and Tani, Theory of architectural systems, (in Japanese) Kyoritsu Shuppan, 2002.

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

## Architectural Planning II

建築計画学 II

【Code】 40270 【Course Year】 【Term】 1st term 【Class day & Period】 【Location】 【Credits】 2

【Restriction】 No Restriction 【Lecture Form(s)】 Lecture 【Language】 【Instructor】 Teruyuki Monnai

【Course Description】 We give a lecture on fundamental knowledge and methods on planning and design of contemporary architecture. To the end, we explain the method of observation, description, evaluation of man-environment relations and the planning and design methods of living environment including architecture based on the knowledge of man-environment relations. Firstly we overview the history and future possibility of theory and practice of architectural planning, and then explain the new architectural planning methods based on ma-environment studies including behavioral science and cognitive science, and the mechanism of design process and design organization. Finally we look over the methodology of architectural planning as man-environment system design.

【Grading】 by term-end examination

【Course Goals】 To develop practical design ability of architecturap spaces based on man-environment relations. C. practical ability, C1. ability to realize architectural space.

【Course Topics】

Theme	Class number of times	Description
Perspective of Theory and Practice of Architectural Planning	2	We explain the outline of development of the architectural planning exploring the relationship between life and space, and look out the future possibility of architectural planning from the viewpoints such as function, meaning, form, space, topos, history, environment, society, and information.
Man-environment Study and Architectural Planning	3	We give a lecture on fundamental knowledge on the planning and design methods for desirable architectural space based on the mechanism of perception, behavior, cognition, and memory. Especially we explain the panning methods of architectural and urban space which afford various meaningful behaviors.
Design Methodology and Architectural Planning	4	We explain the design methodology clarifying the mechanism of design object, design process, design subject, and design language. It is very important to understand the various design methods applicable to architectural planning including the systematic design methods to solve the design problems based on technical rationality and the design methods by dialogue to solve the complex and uncertain problems through the back-talk from circumstances.
Man-environment System Design	3	In the 21st century the coexistence with environment, aging, computerization, globalization, and urban regeneration bring the drastic change of the needs and sense of values concerning architectural planning. Therefore we are asked to deign architectural objects considering their impact on man-environment system. We give a lecture new architectural planning methods such as sustainable design, universal design, and design for information-oriented society.
Methodology of Architectural Planning	2	We look over the architectural planning and design methods such as programming, planning, designing, management, collaboration, field survey, observation method, statistical analysis, experiment, modeling and simulation, and the method of decision-making and evaluation. At last we would like to consider the possibility of architectural planning science.

【Textbook】 using handout prints and slides

【Textbook(supplemental)】 Architectural Institute of Design (ed.), Man-Environment System Design,SHOKOKUSHA, 1997. Architectural Institute of Design (ed.), Spatial Planning Theory for Architectural and Urban planning, INOUE SHOIN, 2002.

【Prerequisite(s)】

【Web Sites】

【Additional Information】 Please contact to the following e-mail; monnai@archi.kyoto-u.ac.jp

## Theory of Landscape Design

景観デザイン論

【Code】 40410 【Course Year】 【Term】 1st term 【Class day & Period】 【Location】 【Credits】 2

【Restriction】 No Restriction 【Lecture Form(s)】 Lecture 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

Theme	Class number of times	Description
	7	
	7	

【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

# Foundation Engineering

建築基礎構造

【Code】 40350 【Course Year】 4th year 【Term】 1st term 【Class day & Period】 【Location】 【Credits】 2

【Restriction】 No Restriction 【Lecture Form(s)】 Lecture 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

Theme	Class number of times	Description
	1	
	3	
	3	
	2	
	2	
	1	
	2	

【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

**Wind Resistant Structures**

耐風構造

【Code】 40420 【Course Year】 4th year 【Term】 1st term 【Class day &amp; Period】 【Location】 【Credits】 2

【Restriction】 No Restriction 【Lecture Form(s)】 Lecture 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

Theme	<small>Class number of times</small>	Description
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【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】



**InTroductIon To Global Engineering**

地球工学総論（地球工学）

【Code】 30011 【Course Year】 4th year 【Term】 1st term 【Class day &amp; Period】 【Location】 【Credits】 2

【Restriction】 【Lecture Form(s)】 【Language】 【Instructor】 Related Teachers

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

<b>Theme</b>	<small>Class number of times</small>	<b>Description</b>
Guidance	1	
Safety and Engineering Ethics	1	
General Lectures	5	
Seminars	6	
Laboratory Visit	1	

【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

**Atelier Practice of Architectural Design V**

設計演習 V

【Code】 40440 【Course Year】 4th year 【Term】 1st term 【Class day &amp; Period】 【Location】 【Credits】 3

【Restriction】 No Restriction 【Lecture Form(s)】 Seminar 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

<b>Theme</b>	Class number of times	<b>Description</b>
	20	
	20	
	20	
	20	
	20	
	20	
	20	
	20	
	20	
	20	

【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

**Exercises on Structural Design of Buildings**

構造設計演習

【Code】 40450 【Course Year】 4th year 【Term】 1st term 【Class day &amp; Period】 【Location】 【Credits】 2

【Restriction】 No Restriction 【Lecture Form(s)】 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

Theme	Class number of times	Description
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【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

**Laboratory Tests of Structural Materials and Members**

構造・材料実験

【Code】 40460 【Course Year】 4th year 【Term】 1st term 【Class day &amp; Period】 【Location】 【Credits】 2

【Restriction】 No Restriction 【Lecture Form(s)】 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

Theme	Class number of times	Description
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【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

## Fire Safety Design of Buildings

建築安全設計

【Code】 40470 【Course Year】 4th year 【Term】 1st term 【Class day & Period】 【Location】 【Credits】 2

【Restriction】 No Restriction 【Lecture Form(s)】 Lecture 【Language】

【Instructor】 Takeyoshi TANAKA (DPRI), Kazunori HARADA

【Course Description】 In buildings and urban facilities, various fire safety measures are implemented, even though they are not well recognized in daily life. In the first half of this course, fundamentals on physical and chemical aspects of building fires are described. In the latter half, design methodologies for fire-safe buildings are described.

【Grading】 Score is evaluated based on end-term examination and other materials.

【Course Goals】 Understanding the framework for fire safety measures to be considered in planning and design of building projects, Essential technical terms and their meanings, the methodology to apply the knowledge to real projects.// Corresponding items in educational goals of department: C. Practical skills/C1. Capability in Realize Building Projects

【Course Topics】

Theme	Class number of times	Description
Introduction	1	The historical fire disasters are described to show the whole view of fire safety issues of buildings and urban area.
Basics of Fire Phenomena	7	Basic fire phenomena such as ignition, burning, spread, fire plume, initial room fire, flashover and fully-developed stage are described in sequence of fire development.
Fire Safety Design of Buildings	7	The principles of fire safety of buildings are described in terms of fire compartmentation, smoke control, egress of occupants, fire fighter's operation, structural fire resistance design.

【Textbook】 Kenchiku Kasaino Mekanizumuto Kasaienzen Sekkei (Mechanism of Building Fires and Safety Design), the Building Center of Japan, 2007 (in Japanese)

【Textbook(supplemental)】 Saburo HORIUCHI, Building Fire Prevention, new ed., Asakura Shoten// Takeyoshi TANAKA, An Introduction to Building Fire Safety Engineering, The Building Center of Japan, 2002// Guidebook on performance Verification methods for egress safety, The Housing Bureau of Ministry of Land, Infrastructure and Transportation, Inoue Shoin, 2000 Guidebook on performance Verification methods for fire resistance, The Housing Bureau of Ministry of Land, Infrastructure and Transportation, Inoue Shoin, 2000

【Prerequisite(s)】 The participants are required to study Environmental engineering in Architecture I (40090) and II (40100) prior to join this course.

【Web Sites】

【Additional Information】 Office hour] Opportunity for Q&A will be provided during the spare time before and after each lecture. Participants can make appointments for further questions.

## Practical Training in Architectural Environmental Engineering

建築環境工学実習

【Code】 40630 【Course Year】 4th year 【Term】 1st term 【Class day & Period】 【Location】 【Credits】 2

【Restriction】 No Restriction 【Lecture Form(s)】 Exercise 【Language】

【Instructor】 Takeyoshi TANAKA, Shuichi HOKOI, Hirotsugu TAKAHASHI, Kazunori HARADA, Shiro ISE, Yosiaki UETANI, Taiichiro ISHIDA, Daisuke OGURA

【Course Description】

【Grading】 Score is evaluated based on reports and participation.

【Course Goals】 The goal is to understand the methods and concepts of measurements and evaluations of physical environments relating to sound, lighting, heat and air quality. Corresponding goals for education of department are; C: Practical skills, C1: Capability in Realize Building Projects.

【Course Topics】

Theme	Class number of times	Description
measurement of thermal environment	3	
measurement of indoor air quality	1~2	
measurement of outdoor climate	2	
measurement of luminous environment	3	
measurement of noise and acoustic environment	3~4	
lecture by practitioners and/or site visit	1~2	Opportunity of visiting to construction site and/or lecture by professional practitioners will be provided in order to understand the role of environmental engineering in architecture.

【Textbook】 None specified. Exercise sheet will be provided during the course.

【Textbook(supplemental)】 Textbooks and notebooks on the courses specified below are necessary for consultation. Function calculator must be provided by participants themselves.

【Prerequisite(s)】 The participants are required to study Environmental engineering in Architecture I (40090) and II (40100) prior to join this course. In addition, the knowledge on Building Systems Design (40180), Urban Environment Engineering (40520), Lighting and Acoustics in Architecture (40320), Thermal Environment Design of Architecture (40600) is desirable.

【Web Sites】

【Additional Information】 [Office hour] Opportunity for Q&A will be provided during the spare time before and after each lecture. Participants can make appointments for further questions.

## Seminar of Practice in Architectural Environmental Engineering

建築環境工学演習

【Code】 40230 【Course Year】 4th year 【Term】 1st term 【Class day & Period】 【Location】 【Credits】 2

【Restriction】 No Restriction 【Lecture Form(s)】 Seminar 【Language】

【Instructor】 Takeyoshi TANAKA, Shuichi HOKOI, Hirotsugu TAKAHASHI, Kazunori HARADA, Shiro ISE, Yoshiaki UETANI, Taiichiro ISHIDA, Daisuke OGURA

【Course Description】 This course is provided to enhance global understanding of the contents lectured in Environmental Engineering in Architecture I & II, and to develop capability in applying the knowledge to real projects. For each topic, examples of design problems are supplied. The participants are to solve the problems by their own skills while interacting with lectures.

【Grading】 Score is evaluated based on reports and participation.

【Course Goals】 The goal is to make global understanding of the elements in environmental engineering in architecture and their mutual relationships. Corresponding goals for education of department are; A: global capability, A2: Capability in understanding the value of architecture in multiple measures, C: Practical skills, C1: Capability in Realize Building Projects.

### 【Course Topics】

Theme	Class number of times	Description
heat conduction and condensation	3	
HVAC system	3	
Building accoustics	2	
lighting and color	1 ~ 2	
Solar characteristics and daylighting	1 ~ 2	
ventilation and smoke control for evacuation	2	
Integrated practice	1	
special lecture and/or site visit	1 ~ 2	

【Textbook】 None specified. Practice sheet will be provided during the course.

【Textbook(supplemental)】 Textbooks and notebooks on the courses specified below are necessary for consultation. Function calculator must be provided by participants themselves.

【Prerequisite(s)】 The participants are required to study Building Systems Design (40180), Environmental engineering in Architecture I (40090) and II (40100) prior to join this course. In addition, the knowledge on Building Systems Design (40180), Urban Environment Engineering (40520), Lighting and Acoustics in Architecture (40320), Thermal Environment Design of Architecture (40600) is desirable.

### 【Web Sites】

【Additional Information】 [Office hour] Opportunity for Q&A will be provided during the spare time before and after each lecture. Participants can make appointments for further questions.

**English for Architects**

專門英語

【Code】 40650 【Course Year】 【Term】 1st term 【Class day &amp; Period】 【Location】 【Credits】 2

【Restriction】 No Restriction 【Lecture Form(s)】 Lecture 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

Theme	<small>Class number of times</small>	Description
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【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】



**Fundamental Training in Architectural Design**

建築造形実習

【Code】40720 【Course Year】1st year 【Term】1st term 【Class day &amp; Period】 【Location】 【Credits】2

【Restriction】No Restriction 【Lecture Form(s)】Exercise 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

<b>Theme</b>	<small>Class number of times</small>	<b>Description</b>
	7	
	7	

【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

**Engineering Ethics**

工学倫理

【Code】 21050 【Course Year】 4th year 【Term】 2nd term 【Class day & Period】 【Location】 【Credits】 2

【Restriction】 No Restriction 【Lecture Form(s)】 Lecture 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

Theme	Class number of times	Description
	2	
	1	
	1	
	2	
	1	
	1	
	1	
	1	
	1	
	1	
	1	
	1	
	1	
	1	
	1	
	1	

【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

## Introduction to Engineering

工学序論

【Code】 21080 【Course Year】 1st year 【Term】 【Class day & Period】 【Location】 【Credits】 1

【Restriction】 No Restriction 【Lecture Form(s)】 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

Theme	<small>Class number of times</small>	Description
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【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

**Exercise in English of Science and Technology**

科学技術英語演習

【Code】22020 【Course Year】2nd year 【Term】 【Class day &amp; Period】 【Location】 【Credits】1 【Restriction】

【Lecture Form(s)】 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

Theme	Class number of times	Description
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【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

**Engineering and Ecology**

工学とエコロジー

【Code】22110 【Course Year】 【Term】1st term 【Class day &amp; Period】 【Location】 【Credits】2 【Restriction】

【Lecture Form(s)】 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

Theme	Class number of times	Description
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【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

**Engineering and Economy**

工学と経済

【Code】22210 【Course Year】 【Term】2nd term 【Class day &amp; Period】 【Location】 【Credits】2 【Restriction】

【Lecture Form(s)】 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

Theme	Class number of times	Description
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【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

**Global Leadership Seminar I**

G L セミナー I

【Code】24010 【Course Year】3rd year 【Term】 【Class day &amp; Period】 【Location】 【Credits】1 【Restriction】

【Lecture Form(s)】 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

Theme	<small>Class number of times</small>	Description
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【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】

**Global Leadership Seminar II**

GLセミナー

【Code】25010 【Course Year】4th year 【Term】 【Class day &amp; Period】 【Location】 【Credits】1 【Restriction】

【Lecture Form(s)】 【Language】 【Instructor】

【Course Description】

【Grading】

【Course Goals】

【Course Topics】

Theme	<small>Class number of times</small>	Description
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【Textbook】

【Textbook(supplemental)】

【Prerequisite(s)】

【Web Sites】

【Additional Information】



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デザイン 工学研究科附属情報センター

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