For entrants in AY 2024

Appended Form 1

Specifications for Major Program

Name of School (Program) [School of Engineering, Cluster 4 (Social and Environmental Engineering)]

	- \	5	5/2
Program name (Japanese)	建築プログラム		
(English)	Program of Architecture and Building Engineering		
, 3 ,	Acquired : Bachelor's degree in Engineering		

2. Overview

Japanese architects are active in the world and contribute to the creation of human culture. In this undertaking, a broad range of knowledge and a deep sense of ethics are required. This is especially true in Hiroshima, where the wisdom to create a peaceful living environment has been accumulated. Against the background of the unique features of Hiroshima, this program provides students education, engineering abilities, and technical skills for creating a living environment with a wide range of knowledge. This program cultivates the ability to voluntarily explore and create new buildings that respond to sustainable development and the information-driven society of the future.

In this program, students learn, in a comprehensive manner, basic engineering knowledge related to architectural design and planning, building environment and services, building engineering, and building materials and production, as well as the knowledge necessary for actual business, such as architectural economy, architectural administration, etc., and artistic and creative abilities. Over half of the graduates advance to the first semester of the doctor's course at graduate school and acquire a higher level of expertise and research competency. After graduation, graduates work actively as engineers in planning, design, equipment, and structure. They work on the construction of buildings of every kind, such as housing, cultural facilities, public institutions, commercial facilities, and industrial facilities, and in the areas related to urban planning and interior planning. They also work actively as architects at construction companies, the housing industry, architectural design offices, and local governments. This program has an educational system that includes the lectures and exercises necessary to meet the academic requirements to qualify for candidacy in the examinations for second-class and first-class architects.

3. Academic Awards Policy (Policy for awarding degrees and goal of the program)

In the Program of Architecture and Building Engineering, students acquire a wide range of knowledge, education, engineering ability, and technical skill for creating living environments, against the background of the unique features of Hiroshima. This program cultivates the ability to voluntarily explore and create new buildings that respond to sustainable development and the information-driven society of the 21st century. This program awards a bachelor's degree in engineering to students who have acquired a deep and broad education, a global perspective to seek peace, the ability to make comprehensive judgments, and who have acquired the number of credits to meet the requirements of the course, a liberal arts education aimed at cultivating a well-rounded character, and the specialized education designed to achieve the following goals:

"Knowledge and Abilities"

(A) The ability to contribute to the realization of peaceful living environments through the creation of architecture (development of professionals who can contribute to a peaceful living environment)

(B) The ability to contribute to social progress and human happiness (development of professionals that can contribute to human happiness)

(C) Possession of a deep personality and ethics as an engineer (cultivation of ethics as engineers)

(D) Possession of basic knowledge of engineering in architecture (acquisition of basic knowledge of engineering) "Abilities and Skills"

(E) Possession of comprehensive, individual expertise and abilities in architecture (acquisition of architectural

expertise and abilities)

"Overall ability"

(F) Possession of design capabilities (cultivation of design capabilities)

(G) Possession of Japanese communication skills and international communication skills (cultivation of communication skills)

(H) The ability to undertake personal development and continued training on a permanent basis (cultivation of ability to undertake personal development and continued training)

(I) Possession of the ability to make precise and rational plans, and to implement them (cultivation of ability to make plans and to implement them)

4. Curriculum Policy (Policy for Preparing and Implementing the Curriculum)

The Program of Architecture and Building Engineering organizes and implements a curriculum according to the following policy, so that students may achieve the goals A to I in the academic awards policy.

•There are three types of class subjects that students learn for four years: "Liberal arts education subjects", "Specialized Basic Subjects", and "Specialized Subjects".

•Students learn mainly liberal arts education subjects in the first year when they are enrolled in school of engineering (cluster 4). These liberal arts education subjects include "Introductory Seminar for First-Year Students", "Peace Science Courses", foreign languages, and mathematics and physics, as foundation courses. Students also learn "Applied Mathematics I", and "Creation of Architectural Space" as the beginning of the specialized basic subjects.

•When students advance to the second year, and assignment to the Program of Architecture and Building Engineering is decided, they study "Specialized Basic Subjects" and "Specialized Subjects" in full swing. The "Specialized Basic Subjects" that students learn in the second and third years include subjects on "Building Engineering" such as building materials and reinforced concrete structures, subjects on "Architectural Environments", and subjects on "Architectural Planning" such as architectural history, building regulations, town planning, architectural planning, and architectural design drawing.

•By learning a variety of subjects in these diverse fields, and at diverse levels of specialization, in a systematic way, students acquire the comprehensive knowledge and methodology necessary to undertake architecture in the 21st century.

•The academic results are checked at the end of the third year, and qualification for undertaking a graduation thesis is judged. After this judgment has been made, when students advance to the fourth year, they are assigned to a laboratory, select their subject of specialized research, begin their graduation research, including experiments, surveys, etc., undergo final examination of their finished graduation thesis, and, finally, obtain graduation and their academic degree.

•Students achieve goal A (development of professionals that can contribute to peaceful living environments) through mastery of liberal arts education subjects "Peace Science Courses" offered in the first year, and the specialized subject "Peace Urbanism and Architecture" offered in the third year.

•Students achieve goal B (development of professionals that can contribute to human happiness) through mastery of the specialized basic subject "Architectural Planning I" and "Town Planning" offered in the second year.

•Students achieve goal C (cultivation of ethics as engineers) through mastery of the specialized basic subjects "Building Administration", and the specialized subject "Building Construction", and "Ethics of Architecture" offered in the third year.

•Students achieve goal D (acquisition of basic knowledge of engineering) through mastery of the specialized basic subjects "Applied Mathematics I, II", "Probability and Statistics", "Creation of Architectural Space", and "Computer Technology in Architecture" offered from the first year through the second year.

•Students achieve goal E (acquisition of architectural expertise and abilities) through mastery of "Creation of Architectural Space" offered in the first year, and the courses on building engineering, architectural environments, and architectural planning offered from the second year through the third year.

•Students achieve goal F (cultivation of design capabilities) through mastery of the specialized basic subject "Architecture Drawings" and the specialized subjects "Artistic Practice" offered in the second year, and the specialized subjects "Project Management in Building", and "Structural Design" offered from the third year through the fourth year.

•Students achieve goal G (cultivation of communication skills) through mastery of liberal arts education subjects, foreign languages, and "Introductory Seminar for First-Year Students" offered in the first year, and the specialized subject "Seminar in Architecture I, II" offered in the third year.

•Students achieve goal H (cultivation of the ability to undertake personal development and continued training) through mastery of the specialized basic subject "Architectural Project and Drawing I, II" offered in the second year, and the specialized subjects, "Field Exercises of Building", "Field Work in Architecture", and "Graduation Thesis" offered from the third year through the fourth year.

•Students achieve goal I (cultivation of the ability to make plans and to implement them) through mastery of the specialized subjects "Architectural Project and Drawing III, IV, V", and "Graduation Thesis" offered from the third year through the fourth year.

In the curriculum described above, teaching and learning will be implemented by utilizing active learning, experiential learning and online classes, depending on the delivery methods of the program, such as lectures, drawing and seminars.

In addition to strict grading using the standards clearly outlined in the syllabus, learning outcomes are evaluated based on the degree to which the goals set by the educational program are achieved.

5. Program Timing and Acceptance Conditions

 \circ When to start the program

This program starts from the first semester of the second year, when students have completed many subjects in the liberal arts course. Cluster 4 has two programs: Architecture and Building Engineering, and Civil and Environmental Engineering. Each program has an upper limit for the acceptable number of students. Assignment to each program is decided at the end of the first year, after taking into account the requests of students and their academic results. The subject that it is recommended to take in the first year of the Program of Architecture and Building Engineering is "Creation of Architectural Space".

• Credit Requirements

As architecture involves human living as a whole, it is desirable to learn as wide a range of subjects as possible in the liberal arts course, regardless of whether these subjects belong to humanities or science courses.

6. Qualifications to be Acquired

Students qualify for candidacy for the examination for class 2 and class 1 architects.

7. Class Subjects and Course Content

* For class subjects, see the subject list in the attached sheet 1. (Subject list to be attached.)

* For course content, see the syllabus published every academic year.

8. Academic Achievements

At the end of each semester, evaluation criteria are applied to each academic achievement evaluation item to clearly demonstrate the attainment level. Students' grade calculation for each subject, from admission to the university until the current semester, is given as one of the three levels: "Excellent," "Very Good," and "Good," based on evaluation criteria calculated by adding the weighted values to the numerically-converted values of their academic achievements (S = 4, A = 3, B = 2, and C = 1) in each subject being evaluated.

Evaluation of academic	Converted
achievement	values
S (Excellent: 90 points or higher)	4
A (Superior: 80-89 points)	3
B (Good: 70-79 points)	2
C (Fair: 60-69 points)	1

Academic achievement	Evaluation
Academic achievement	criteria
Excellent	3.00-4.00
Very Good	2.00-2.99
Good	1.00-1.99

* See the relationship between evaluation items and evaluation criteria in the attached sheet 2.

* See the relationship between evaluation items and class subjects in the attached sheet 3.

* See the curriculum map in the attached sheet 4.

9. Graduation Thesis (Graduation Research) (Purpose, when and how it is assigned, etc.)

∘ Purpose

The graduation thesis is intended to be a major subject for the achievement of the following learning and educational goals.

"Knowledge and Abilities" (D) Possession of basic engineering knowledge in architecture

"Abilities and Skills" (E) Possession of comprehensive, individual expertise and abilities in architecture

"Overall abilities" (F) Possession of design capabilities

"Overall abilities" (G) Possession of Japanese communication skills and international communication skills

"Overall abilities" (H) Possession of the ability to undertake personal development and continued training on an ongoing basis

"Overall abilities" (I) Possession of the ability to make precise and rational plans, and to implement them • When and how it is assigned

When it is assigned: At the start of fourth year (only those who meet the conditions for undertaking a graduation thesis are to be assigned.)

Conditions for undertaking a graduation thesis

(1) Students must acquire 46 credits in liberal arts education.

(2) Students must acquire 38 or more credits (including all compulsory subjects) in the basic special courses of the specialized education.

(3) Students must complete "Architectural Project and Drawing III, IV".

(4) Out of the total number of credits in basic special education and special education to be acquired before graduation (excluding the 5 credits for graduation thesis), the number of credits yet to be obtained should be 10 or fewer.

 \circ How students are assigned

Details of each laboratory to which students can be assigned, as well as details of research undertaken by supervisors and the assignment policy (the number of students acceptable to each laboratory and supervisor, etc.) are to be explained by the provided guidance given to students. Depending on academic results in Architectural Project and Drawing, about 10% of students who can undertake a graduation thesis will be able to submit graduation designs as their thesis.

Assignment is decided according to the requests of students who can undertake a graduation thesis. However, since the number of acceptable students is limited, adjustments may be made.

10. Responsibility System

(1) PDCA responsibility system ("Plan," "Do," "Check," and "Act")

In this program, the architectural studies group, consisting of the teachers in charge. and its subsidiary, the selfassessment evaluation committee, are organized in order to check and improve the program. Under these committees, a curriculum examination working group, a planning examination working group for faculty development (FD), and an external evaluation working group are established. For the smooth running of the educational program in each area, these committees and working groups check and evaluate the learning and educational goals, the evaluation methods used to judge levels of attainment, and the whole educational system (educational methods, educational environment, etc.) (Check), examine educational improvement methods (Act), make improvement plans to improve learning and educational goals, educational methods, and the educational environment (Plan), and implement these plans (Do). In this way, the PDCA improvement cycle is established. This program has a system under which all the teachers in charge, centering on the program manager, cooperate and move forward.

(2) Program evaluation

• Criteria for program evaluation

In this program, evaluation is carried out according to the following evaluation criteria.

•Whether an education evaluation system exists that is able to check the program based on the evaluation results of learning and the attainment level of educational goals, whether its mechanism is disclosed, and whether the related activities are being implemented

•Whether the education evaluation system contains mechanisms that take into consideration the requirements of society or requests from students, and whether it is organized so as to check the functioning of the education

check system itself

•Whether the teachers involved in this program are able to view the records of the meetings

or committees that constitute the education evaluation system

•Whether there is a system in place that improves the program continuously based on the results of education evaluations, and whether the related activities are being conducted

•How the program is evaluated (relationship to class evaluation to be described)

The architectural studies group and each committee focus on evaluation and improvement of the program. The most important things are the following two points.

•Evaluation and improvement of the program are conducted on a daily basis and in a systematic manner.

•Revision and improvement of the learning and educational goals, evaluation methods, and evaluation standard for attainment levels are conducted continuously.

•The self-assessment evaluation committee implements the following unique questionnaires as part of the program evaluation.

•A questionnaire targeted at students, about the learning environment

•A questionnaire targeted at teachers, about lecture implementation status, lecture improvement plans, opinions about other lectures, etc.

•A questionnaire to confirm the learning and educational goals and the validity of the evaluation of attainment levels (targeted at graduates and companies)

The architectural studies group requests the committees to check the program, present their improvement plans, and prepare FD proposals, and, after discussing the reports and proposals submitted by the committees, the group decides on the improvement strategy. As the group consists of all teachers in charge of the program, the evaluation and improvement strategy decided here is considered to have been explained to all members, and is then put into action. In particular, regarding matters associated with the curriculum, the curriculum examination working group in the self-assessment evaluation committee makes its own checks and proposes the necessary improvement plan. The validity of this program from the point of view of society is checked by the external evaluation working group, evaluated by external academics, and checked by means of a questionnaire targeted at employers and graduates. These activities are conducted on an ongoing basis.

 $\circ \textsc{Thinking}$ on feedback to students and how it is conducted

In this program, tutors keep track of students' obtained credits on a constant basis, and, through interviews with students at the end of the semester, tutors give guidance so that students can achieve the learning and educational goals. Tutors also respond to students' questions and provide consultation for students. Students' requests are obtained from tutors, which are reflected in the improvement of this program. Furthermore, based on the results of the class evaluation questionnaire targeted at students, an improvement questionnaire about class improvement measures, etc. targeted at teachers is carried out. This program improves classes in response to student requests.

Cluster 4 (Civil Engineering and Architecture)

 \odot Required subject (period of registration specified)

 \bigcirc Compulsory elective subject (any of these subjects shall be registered)

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Note 1: When students fail to acquire the credit during the term or semester marked with \odot , \bigcirc , \triangle in the boxes for the year in which the course is taken, they can take the course in subsequent terms or semesters. Depending on class subject, courses may be offered in semesters or terms different from those scheduled. Please be sure to check the time schedule for Liberal Arts Education subjects to be issued every

Note 2: The credit obtained by mastery of self-directed study of "Online Seminar in English A+B" cannot be counted towards the credit necessary for graduation. The credit obtained by Overseas Language Training can be recognized as Communication I or II if application is made in advance. For more details, please refer to the article on English in Liberal Arts Education in the student handbook.

Note 3: We have a recognition of credit system for foreign language proficiency tests. For more details, please refer to the article on Foreign Language in Liberal Arts Education in the student handbook.

Note 4: Students must take both <code>FExperimental Methods</code> and Laboratory WorkI(1credit) <code>Jand FExperimental Methods</code> and Laboratory WorkII (1credit) <code>J.</code>

Cluster 4 Specialized Basic Subjects $_{\odot}$

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Basic Engineering Computer Programming	2	\bigcirc	\bigcirc							4	L	4								*2
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Creation of Architectural Space	2	3	\bigcirc	-		4				-										
Lifestyle and the city	2	3	$\overline{\bigcirc}$			4														
Introduction of Civil and Environmental Engineering	2	Ô	0			-		4												
Mathematics of Civil Engineering	2							-	4											
Strength of Materials	2	\bigcirc							4											
Exercise of Strength of Materials	1	$\underline{\tilde{2}}$							4											
Structural Mechanics	2	\bigcirc		-				-		4										
Exercise of Structural Mechanics	1	$\overline{2}$								4										
Hydraulics	2	\bigcirc									4									
Soil Mechanics	2	\bigcirc									4									
Exercise of Soil Mechanics	1	2									4									
Construction Materials	2	\bigcirc							4											
Concrete Engineering	2	\bigcirc								4										
Fluid Mechanics	2	\bigcirc								4										
Exercise of Fluid Mechanics	1	2								4										
Infrastructure Planning	2	\bigcirc									4									
Environmental Chemistry for Atmosphere and Water	2	\bigcirc						4												
Microbiology and Ecology for Engineering	2	\bigcirc							4											
Land Surveying and Exercise	3	\bigcirc						8												
Applied Surveying and Advanced Measurements	2	\bigcirc											4							
Field Work at Construction Sites	1	\triangle												4						
Experiments in Civil and Environmental Engineering	2	\bigcirc											8							
Building Material	2		\bigcirc							4										
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Introduction of Building Structure	2		A						4											

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Architectural Structural Mechanics I	4		\bigcirc					4	4											
Architectural Structural Mechanics II	4		\bigcirc							4	4									
Vibration Theory of Buildings	2		\bigcirc												4					
Reinforced concrete structure	2		(A)										4							
Geotechnical and Architectural Foundation Engineering	2		\bigcirc												4					
Building Administration	2		\bigcirc										4							
Field Exercises of Building	1		D									1	1	1	1					
History of Architecture I	2		\bigcirc							4										
Architectural Planning I	2		\bigcirc						4											
Town Planning	2		\bigcirc								4									
Architectural Environments I	2		B					4												
Architectural Environments II	2		B							4										
Exercises in Environmental Science	1		B										4							
Field Work in Architecture	1		\bigcirc											3	3					
Computer Technology in Architecture	2		\bigcirc								4									
Design Concepts of Steel Structures	2		(A)							4										
Architecture drawings	2		\bigcirc					4												
Timber structure	2		A								4									

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Required subjects

*1 As the course is offered every other year, you should take either of the courses.
 *2 Civil and Environmental Engineering is offered in the second semester of the second year, while Architecture and Building Engineering is offered in the first term of the first semester of the third year.

Cluster 4 Specialized Subjects (Program of Architecture and Building Engineering)

ORequired subjects

 \bigcirc , E, E Compulsory Elective subjects Class Hours/Week Type of course Credits gistration 1st grade 2nd grade 3rd grade 4th grade **Class Subjects** Note Fall Spring Spring Spring Fall Spring Fall Fall 1T 2T 3T 4T $\mathbf{2}$ \bigcirc 4 Methods of Structural Analysis \bigcirc 2 Earthquake Resistant Structures 4 $\mathbf{2}$ \bigcirc 6 Structural Design (E)**Building Construction** $\mathbf{2}$ 4 $\mathbf{2}$ \bigcirc **Disaster Prevention of Buildings** 4 2 Seminar in Architecture I 4 $\mathbf{2}$ \bigcirc **Design of Steel Structures** 4 (\overline{F}) $\mathbf{2}$ 4 History of Architecture II (\overline{F}) Architectural Planning II $\mathbf{2}$ 4 \bigcirc **Building Services I** $\mathbf{2}$ 4 $\mathbf{2}$ **Building Services II** 4 \bigcirc Architectural Project and Drawing III 3 9 9 \bigcirc Architectural Project and Drawing V $\mathbf{2}$ 6 6 2 6 **Artistic Practice** 6 Seminar in Architecture II $\mathbf{2}$ 4 Seminar in Architecture III 1 1 1 $\mathbf{2}$ **Urban Environment** 4 Peace Urbanism and Architecture $\mathbf{2}$ (\mathbf{F}) 4 4 1 1 Sustainable Design 1 $\mathbf{2}$ Vegetation Ecology 1 (E)Project Management in Building $\mathbf{2}$ 4 \bigcirc Architectural Project and Drawing IV 3 9 9 $\mathbf{2}$ \bigcirc **Ethics of Architecture** 4 $\mathbf{5}$ \bigcirc Graduation Thesis

Aca	der	nic Achievements in Architectu	re and Building Engineering		Sheet2
The	Rel	ationship between Evaluation Iten	ns and Evaluation Criteria		
		Academic Achievements		Evaluation Criteria	
		Evaluation Items	Excellent	Very Good	Good
8	(A)	Understanding on development of human resources who can contribute to a peaceful global environment. (Being able to name symbolic buildings of peace city Hiroshima and to describe their characteristics. Being able to explain the city planning and histrory designed for peace. Being able to express their opinions to create a peaceful environment)	Understand and be able to explain development of human resources who can contribute to a peaceful global environment. (Being able to name symbolic buildings of peace city Hiroshima and to describe their characteristics. Being able to explain the city planning and histrory designed for peace. Being able to express their opinions to create a peaceful environment)	Understand development of human resources who can contribute to a peaceful global environment. (Being able to name symbolic buildings of peace city Hiroshima and to describe their characteristics. Being able to explain the city planning and histrory designed for peace. Being able to express their opinions to create a peaceful environment)	Understand outline of development of human resources who can contribute to a peaceful global environment. (Being able to name symbolic buildings of peace city Hiroshima and to describe their characteristics. Being able to explain the city planning and histrory designed for peace. Being able to express their opinions to create a peaceful environment)
Understandin	(B)	Understanding on development of human recourses who can contribute to human happiness. (Being able to explain domestic and global issues, and to express their opinions. Learning liberal arts for social science to find a direction from a global point of view)	Understand and be able to explain on development of human recourses who can contribute to human happiness. (Being able to explain domestic and global issues, and to express their opinions. Learning liberal arts for social science to find a direction from a global point of view)	to find a direction from a global point of view)	Understand outline of development of human recourses who can contribute to human happiness. (Being able to explain domestic and global issues, and to express their opinions. Learning liberal arts for social science to find a direction from a global point of view)
Knowledge and Understanding	(C)	Understanding on cultivation of a sense of ethics for engineers (Being able to enumerate and explain examples for effects of actions and products of engineers on our society and to express their opinions. Learning liberal arts for humanities and social science to find their directions from a global point of view)	Understand and be able to explain cultivation of a sense of ethics for engineers (Being able to enumerate and explain examples for effects of actions and products of engineers on our society and to express their opinions. Learning liberal arts for humanities and social science to find their directions from a global point of view).	Understand cultivation of a sense of ethics for engineers (Being able to enumerate and explain examples for effects of actions and products of engineers on our society and to express their opinions. Learning liberal arts for humanities and social science to find their directions from a global point of view)	Understand outline of cultivation of a sense of ethics for engineers (Being able to enumerate and explain examples for effects of actions and products of engineers on our society and to express their opinions. Learning liberal arts for humanities and social science to find their directions from a global point of view)
	(D)	Understanding on learning basic engineering knowledge. (Being able to explain basic contents of mathematics, physics and information technology. Being able to apply the basic contents to architecture and building engineering)	Understand and be able to explain learning basic engineering knowledge. (Being able to explain basic contents of mathematics, physics and information technology. Being able to apply the basic contents to architecture and building engineering)	Understand learning basic engineering knowledge. (Being able to explain basic contents of mathematics, physics and information technology. Being able to apply the basic contents to architecture and building engineering)	Understand outline of learning basic engineering knowledge. (Being able to explain basic contents of mathematics, physics and information technology. Being able to apply the basic contents to architecture and building engineering)
	(E-1)	Understanding on cultivation of expert knowledge and ability for architecture and building engineering. ((1) General and basic knowledge and ability a) Basic knowledge and ability for architectural design and planning)	Understand and be able to explain cultivation of expert knowledge and ability for architecture and building engineering. ((1) General and basic knowledge and ability a) Basic knowledge and ability for architectural design and planning)	Understand cultivation of expert knowledge and ability for architecture and building engineering. ((1) General and basic knowledge and ability a) Basic knowledge and ability for architectural design and planning)	Understand outline of cultivation of expert knowledge and ability for architecture and building engineering. (1) General and basic knowledge and ability a) Basic knowledge and ability for architectural design and planning)
Skills	(E-2)	Understanding on cultivation of expert knowledge and ability for architecture and building engineering. ((1) General and basic knowledge and ability a) Basic knowledge and ability for architectural design and planning)	Understand and be able to explain cultivation of expert knowledge and ability for architecture and building engineering. ((1) General and basic knowledge and ability b) Basic knowledge and ability for architectural environments)	Understand cultivation of expert knowledge and ability for architecture and building engineering. ((1) General and basic knowledge and ability b) Basic knowledge and ability for architectural environments)	Understand outline of cultivation of expert knowledge and ability for architecture and building engineering. ((1) General and basic knowledge and ability b) Basic knowledge and ability for architectural environments)
Abilities and Skills	(E-3)	Understanding on cultivation of expert knowledge and ability for architecture and building engineering. ((1) General and basic knowledge and ability c) Basic knowledge and ability for structural engineering)	for structural engineering)	Understand cultivation of expert knowledge and ability for architecture and building engineering. ((1) General and basic knowledge and ability c) Basic knowledge and ability for structural engineering)	Understand outline of cultivation of expert knowledge and ability for architecture and building engineering. ((1) General and basic knowledge and ability c) Basic knowledge and ability for structural engineering)
	(E-4)	Understanding on cultivation of expert knowledge and ability for architecture and building engineering. ((2) Comprehensive and advanced knowledge and ability to develop basis for building engineers. Being able to summarize documents of the advanced contents on either a), b) or c)	Understand and be able to explain cultivation of expert knowledge and ability for architecture and building engineering. ((2) Comprehensive and advanced knowledge and ability to develop basis for building engineers. Being able to summarize documents of the advanced contents on either a), b) or c)	summarize documents of the advanced contents on either a), b) or c)	Understand outline of cultivation of expert knowledge and ability for architecture and building engineering. ((2) Comprehensive and advanced knowledge and ability to develop basis for building engineers. Being able to summarize documents of the advanced contents on either a), b) or c)
	(F)	Understanding on cultivation of design capacity. (Being able to indicate issues and to propose solutions for given subjects from various points of views. Being able to understand the social background of their researchs and to propose the research plans for their theses.)	Understand and be able to explain cultivation of design capacity. (Being able to indicate issues and to propose solutions for given subjects from various points of views. Being able to understand the social background of their researchs and to propose the research plans for their theses.)	Understand cultivation of design capacity. (Being able to indicate issues and to propose solutions for given subjects from various points of views. Being able to understand the social background of their researchs and to propose the research plans for their theses.)	Understand outline of cultivation of design capacity. (Being able to indicate issues and to propose solutions for given subjects from various points of views. Being able to understand the social background of their researchs and to propose the research plans for their theses.)
Overall Abilities	(G)	Understanding on cultivation of communication ability. (1) International communication ability. Being able to introduce themselves to foreigners and make communications. Being able to read and write technical papers on architecture and building engineering using dictionaries). ((2) Communication ability in Japanese. Being able to introduce their own ideas to audience and to have questions and answers session. Being able to prepare persuasive materials. Being able to fully understand technical papers on architecture and building engineering (graduation theses for example) and to prepare manuscripts to convey the research results.)	Understand and be able to explain cultivation of communication ability. (1) International communication ability. Being able to introduce themselves to foreigners and make communications. Being able to read and write technical papers on architecture and building engineering using dictionaries.) ((2) Communication ability in Japanese. Being able to introduce their own ideas to audience and to have questions and answers session. Being able to prepare persuasive materials. Being able to fully understand technical papers on architecture and building engineering (graduation theses for example) and to prepare manuscripts to convey the research results.)	Understand cultivation of communication ability. ((1) International communication ability. Being able to introduce themselves to foreigners and make communications. Being able to read and write technical papers on architecture and building engineering using dictionaries.) ((2) Communication ability in Japanese. Being able to introduce their own ideas to audience and to have questions and answers session. Being able to prepare persuasive materials. Being able to fully understand technical papers on architecture and building engineering (graduation theses for example) and to prepare manuscripts to convey the research results.)	Understand outline of cultivation of communication ability. (11) International communication ability. Being able to introduce themselves to foreigners and make communications. Being able to read and write technical papers on architecture and building engineering using dictionaries.) (22) Communication ability in Japanese. Being able to introduce their own ideas to audience and to have questions and answers session. Being able to prepare persuasive materials. Being able to fully understand technical papers on architecture and building engineering (graduation theses for example) and to prepare manuscripts to convey the research results.)

onvey the research results.) Understand and be able to explain education for self Understand education for self-development and self-Understand outline of education for self-development development and self-improvement. (Being able to collect materials related to recent problems) improvement. (Being able to collect materials related to recent problems) and self-improvement. (Being able to collect materials related to recent problems) Understand and be able to explain cultivation of ability for planning and exercising (Being able to accomplish their subjects and to summarize the Understand cultivation of ability for planning and Understand outline of cultivation of ability for xercising (Being able to accomplish their subjects and to summarize the results within a time limit. planning and exercising (Being able to accomplish their subjects and to summarize the results within a esults within a time limit. Experiencing Experiencing collaborative works through time limit. Experiencing collaborative works through ollaborative works through experiments, practices experiments, practices and graduation theses.). experiments, practices and graduation theses.) nd graduation theses.).

Placement of the Liberal Arts Education in the Major Program

Understanding on education for self-development and

self-improvement. (Being able to collect materials related to recent problems)

Understanding on cultivation of ability for planning

and exercising (Being able to accomplish their subjects and to summarize the results within a time limit. Experiencing collaborative works through

xperiments, practices and graduation theses.).

(H)

(I)

Liberal arts education in this program takes on the role of building an academic foundation on which the specialized education in architecture will be built. It cultivates scientific thinking abilities based on respect for a voluntary and self-reliant attitude, data gathering ability, analytical ability, and critical thinking ability, and establishes an outlook that can provide insight into the essence and background of things from a broad perspective, as well as strengthening the language skills and interest in peace appropriate for those who live as an internationally minded people, and incorporating a broad range of knowledge into a body of knowledge genuinely useful for solving problems.

Sheet3

Relationships between the evaluation items and class subjects

			1											Ev	aluati	on ite	ms											
						wledg								Abi	lities a	and Sl	kills							sive A				Total
					A)		B)		C)		D)		-1)	(E	-2)	(E	-3)		-4)		F)		G)	(1	H)		I)	weighte d value
Subject type	Class subjects	credits	Period	Weighte d values	Weights	Weighte d values	Weights	Weighte d values	Weights	Weighte d values	Weights	Weighte d values	Weights	Weighte d values	Weights	Weighte d values	Weights	of evaluat										
				of evaluati	values of	of evaluati	values of	of evaluati	values	of evaluati	values	of evaluati	values of	of evaluati	values	of evaluati	values	of evaluati	values	of evaluati	values of	of evaluati	values	of evaluati	values	of evaluati	values of	on item in the
				on items in the	evaluati on items	on items in the	of evaluati on items	on items in the	evaluati on items	on items in the	evaluati on items	on items in the	ovaluati	on items in the	evaluati on items	on items in the	evaluati on items	on items in the	evaluati on items	subject								
Liberal Arts Education	Introductory Seminar for First-Year Stadeots	0		subject		subject		subject		subject		subject		subject		subject		subject		subject		subject		subject		subject		100
Liberal Arts Education	Peace Science Courses	2	Increastor	100	1				-											30	1	40	1	30	1			100 100
Liberal Arts Education	CommunicationIA	1	Increastor	100	1																	100	1					100
Liberal Arts Education	Communication IB	1	Increased						-				-									100	1					100
Liberal Arts Education	Communication IIA	1	2semestor						-				-									100	1					100
Liberal Arts Education	Communication II B	1	2semester																			100	1					100
Liberal Arts Education	Basic language I	1	Isomeester																			100	1					100
Liberal Arts Education	Basic language II	1	Isomeester																			100	1					100
Liberal Arts Education	Information and Data Science Courses	2	Isensester							100	1																	100
Liberal Arts Education	Area Courses	2	Isomeester	10	1	70	1	20	1																			100
Liberal Arts Education	Health and Sports Courses	2	Isomeostor			100	1																					100
Liberal Arts Education	CalculusI	2	Isensester							100	1																	100
Liberal Arts Education	CalculusII	2	2semester							100	1																	100
Liberal Arts Education	Linear AlgebraI	2	Isensester							100	1																	100
Liberal Arts Education	Linear AlgebraII	2	2sectesstor							100	1																	100
Liberal Arts Education	Seminar in Basic Mathematics I	1	Isensester							100	1																	100
Liberal Arts Education	Seminar in Basic Mathematics II	1	2sectsoster							100	1																	100
Liberal Arts Education	General Mechanics I	2	lsemeeter	l						100	1																	100
Liberal Arts Education	General Mechanics II	2	2secoseter	l						100	1																	100
Liberal Arts Education	Reprintental Methods and Laboratory Work in Physics I-1	1	Sectoreter							100	1																	100
Specialized Education	Applied Mathematics I	2	2semeester							100	1																	100
Specialized Education	Applied Mathematics II	2	Sectoseter							100	1																	100
Specialized Education	Applied Mathematics III	2	Sectorstor							100	1																	100
Specialized Education	Engineering Mathematics A	2	Sectionstor							100	1																	100
Specialized Education Specialized Education	Probability and Statistics	2	Sectorer			30	1			100	1			70	1			-		-								100 100
Specialized Education	Environmental Theory	2	Geoteoster			30	1			100	1			10	1													100
Specialized Education	Synthesis of Applied Mathematics	2	instanto							100	1																	100
Specialized Education	Creation of Architectural Space	2	2segmenter							100	1																	100
Specialized Education	Lifestyle and the city	2	2semestor							100	1																	100
Specialized Education	Building Material	2	deconstor							100						100	1											100
Specialized Education	Experiments on Building Materials	1	Sectoreter													60	1							10	1	30	1	100
Specialized Education	Introduction of Building Structure	2	Sectorstor													100	1											100
Specialized Education	Architectural Project and Drawing I	2	Secnester	20	1							60	1											10	1	10	1	100
Specialized Education	Architectural Project and Drawing II	2	decreestor			20	1					60	1											10	1	10	1	100
Specialized Education	Architectural Structural Mechanics I	4	Sectionstor							20	1					80	1											100
Specialized Education	Architectural Structural Mechanics II	4	decreester							20	1					80	1											100
Specialized Education	Vibration Theory of Buildings	2	Genteestor							20	1					80	1											100
Specialized Education	Reinforced concrete structure	2	Sectionstor													100	1											100
Specialized Education	Gestabelial and Architectural Resolution Engineering	2	Generator							20	1					80	1											100
Specialized Education	Building Administration	2	Sectiontor					40	1			60	1															100
Specialized Education	Field Exercises of Building	1	5,6seasester					10	1									60	1			10	1	10	1	10	1	100
Specialized Education	History of Architecture I	2	4secteoster	20	1	20	1					60	1							10				10	1			100
Specialized Education	Architectural Planning I Town Planning	2 2	Sectionstor			10 20	1					70 70	1							10 10	1			10	1			100 100
Specialized Education	Architectural Environments I	2	-sectleoster			20	1					70	1	100	1					10	1							100
Specialized Education	Architectural Environments II	2	-isetheoster											100	1													100
Specialized Education	Exercises in Environmental Science	1	Sectionster											70	1									10	1	20	1	100
Specialized Education	Field Work in Architecture	1	Geotteostor															70	1			10	1	10	1	10	1	100
Specialized Education	Computer Technology in Architecture	2	4secteoster							100	1																	100
Specialized Education	Design Concepts of Steel Structures	2	decreester													80	1							10	1	10	1	100
Specialized Education	Architecture drawings	2	Secuenter									60	1							40	1							100
Specialized Education	Methods of Structural Analysis	2	Genteester															100	1									100
Specialized Education	Earthquake Resistant Structures	2	Genteestor															100	1									100
Specialized Education	Structural Design	2	7semester															60	1	10	1	10	1	10	1	10	1	100
Specialized Education	Building Construction	2	Sectionster					20	1									80	1									100
Specialized Education	Disaster Prevention of Buildings	2	7sectionster															100	1									100
Specialized Education	Seminar in Architecture I	2	Sectoreter	<u> </u>														60	1			20	1	20	1			100
Specialized Education	Design of Steel Structures	2	Sectiontor															100	1									100
Specialized Education	History of Architecture II	2	Sectionstor	20	1	20	1											60	1									100
Specialized Education	Architectural Planning II	2	4semester			10	1											70	1	10	1			10	1			100
Specialized Education	Building Services I	2	Sectionstor	I														100	1									100
Specialized Education	Building Services II Architectural Project and Drawing III	2	Gertester	10	1	10	1											100	1	10	1	10	1	10	1	10	1	100
Specialized Education Specialized Education	Architectural Project and Drawing III Architectural Project and Drawing IV	3	Germante	10 10	1	10	1											40	1	10	1	10	1	10	1	10	1	100
Specialized Education	Architectural Project and Drawing IV Architectural Project and Drawing V	3	Testante-	10	1	10	1											40 40	1	10 20	1	10 10	1	10 10	1	10 20	1	100
Specialized Education	Artistic Practice	2	3semeester															40 60	1	30	1	10	1	10	1	20		100
Specialized Education	Seminar in Architecture II	2	Generator															60	1			20	1	20	1			100
Specialized Education	Seminar in Architecture III	1	7eemeeter															50	1	10	1	10	1	10	1	20	1	100
Specialized Education	Urban Environment	2	Sections															100	1									100
Specialized Education	Peace Urbanism and Architecture	2	Germenter	30	1	10	1											60	1									100
Specialized Education	Sustainable Design	1	Genteestor															100	1									100
Specialized Education	Vegetation Ecology	1	Germoster															100	1									100
Specialized Education	Project Management in Building	2	Generator															80	1	10	1					10	1	100
						. —		90	1									10	1	1				. —		. —		100
Specialized Education	Ethics of Architecture	2	Generator					50	-									10	1									100
Specialized Education Specialized Education	Ethics of Architecture Graduation Thesis	2 5	Geetheoster Theomeoster					50	-	10	1							40	1	10	1	20	1	10	1	10	1	100

Sheet 4 Curriculum Map

A					Class sub	jects			
Academic Achievement	Evaluation Items	1st gi		2nd	grade	3rd g		4th	grade
Achievement		Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall
Knowledge and Understan ding (A)	Understanding on development of human resources who can contribute to a peaceful global environment.	Class subjects (©) Peace Science Co urses (©)	►Class subjects(©)-	Architectural Project	History of Architecture]	History of Architecture II Architectural Project and Drawing III (③	Architectural Project and Drawing IV Peace Urbanism and →Architecture		
Knowledge and Understan ding(B)	Understanding on development of human recourses who can contribute to human happiness.	Class subjects()	►Class subjects(©)-	Architectural Planning I 1	Architectural Project and Drawing II (③) History of Architecture] — Town Planning Architectural Planning II Environmental Theory —	Architectural Project and – Drawing III (©) History of Architecture II–	Architectural Project and Drawing IV Peace Urbanism and Architecture		
Knowledge and Understan ding(C)	Understanding on learning basic engineering knowledge.	Class subjects(©) —	Class subjects(©)-			Building Administration	Fihics of Architecture (5) Field Exercises of Building		
Knowledge and Understan ding(D)	Understanding on cultivation of expert knowledge and ability for architecture and building engineering.	Courses in Natural Sciences · Information and Data Science Courses (③)	Courses in Natural Sciences (③) Applied Mathematics I (⑤)	Courses in Natural Sciences (③) Applied Mathematics II Applied Mathematics III Probability and Statistics	Synthesis of Applied Mathematics Computer Technology in Architecture	Engineering Mathematics A		Graduation Thesis (©) –	Graduation Thesis (@)

Abilities and Skills (E)	Understanding on cultivation of expert knowledge and ability for architecture and building engineering		Creation of Architectural	Basic Specialized	Basic Specialized Subjects Specialized Subjects	Basic Specialized Subjects Specialized Subjects	Specialized Subjects	Graduation Thesis (©) Specialized Subjects	► Graduation Thesis (©)
Comprehen sive Abilities (F)	Understanding on cultivation of design capacity.	Introductory Seminar for First-Year Students (©)		Architectural Planning	Architectural Planning II —	Architectural Project and	Architectural Project and Drawing IV (5) Project Management in Building	Graduation Thesis (©) Architectural Project- and Drawing V Structural Design (2) Artistic Practice Seminar in Architecture III	Graduation Thesis (©)
Comprehen sive Abilities (G)	Understanding on cultivation of communication ability	Foreign Languages - Introductory Seminar for First-Year Students (©)		Artistic Practice		Architectural Project and Drawing III (©) Seminar in Architecture	Architectural Project and Drawing IV (5) Field Work in Architecture Seminar in Architecture	Graduation Thesis (©) Architectural Project and Drawing V Structural Design (☉) Artistic Practice Seminar in Architecture II	Graduation Thesis (©)
Comprehen sive Abilities (H)	Understanding on education for self-development and self- improvement.	○ Introductory Seminar for First-Year Students		Architectural Project and Drawing I (@) Architectural Planning	Architectural Project and Drawing II () Architectural Planning II Design Concepts of Steel Structures	Architectural Project and Drawing III (©) Seminar in Architecture I Exercises in Environmental Science	Architectural Project and Drawing IV () Seminar in Architecture II Field Exercises of Building Field Work in Architecture	Graduation Thesis ((5)) Architectural Project and Drawing V Structural Design (c) Seminar in Architecture III	Graduation Thesis (©)

Comprehen	(I) Understanding on cultivation of		Architectural Project	Architectural Project and Drawing II (©) Design Concepts of Steel Structures	Architectural Project and Drawing III ([®]) Exercises in Environmental Science	Architectural Project and Drawing IV (0) Field Exercises of Building	Graduation Thesis Graduation Thesis (©) (©) Architectural Project and Drawing M
Sive Abilities (I)	ability for planning and exercising					Field Work in Architecture Project Management in Building	Structural Design (o) Seminar in Architecture III

◎: Required subject (period of registration specified), ○: Compulsory elective subject (any of these subjects shall be registered)