Appended Form 1

Specifications for Major Program

○ Purpose

○ When and how it is assigned

○ How students are assigned

○ Criteria for program evaluation

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

Cluster 4 (Civil Engineering and Architecture

Required subject (period of registration specified)

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

Free elective subject (any of these subjects shall be registered)

	Subject Type			Required No. of credits	Class subjects	No. of credits	Type of course registratio	1T	2T	3T	4T	1T	2T	3T	4T	Spring 1T	Spring 2T	Fall 3T	Fall 4T	Spring 1T	Spring 2T	Spring 3T	Spring 4T
Liberal Arts Education Subjects	Peace Science Courses			2		2	Compulsory elective																
	Basic Courses in University Education	Introduction to University Education		2	Introduction to University Education	2	Required																
		Introductory Seminar for First-Year		2	Introductory Seminar for First-Year	2	Required																
	Area Courses			4	Courses in Arts and Humanities/Social Sc	2	Compulsory elective																
				4	Courses in Natural Sciences	2																	
	Common Subjects	Foreign Languages	Basic English Usage	0	Basic English UsageI	1	Free elective																
					Basic English UsageII	1																	
			English (Note2 3) Communication I	2	CommunicationI	1	Required																
					Communication I	1																	
			English (Note2 3) Communication	2	Communication II	1	Required																
					Communication II	1																	
			Initial Foreign Languages (Select one language from German, French, Spanish, Russian, Chinese, Korean and Arabic)	2	1 subjects from Basic language I	1	Compulsory elective																
					1 subjects from Basic language II	1																	
		Information and Data Science Courses		2	Elements of Information Literacy or Exercise in Information Literacy	2	Compulsory elective																
		Health and Sports Cou																					
		Basic Subjects		16			Required																
	Free elective subjects				From all Subject Type Note		Free elective																
	No. of credits required for graduation			46																			

Note When students fail to acquire the credit during the term or semester marked with 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 The credit obtained by mastery of "English-speaking Countries Field Research" or 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 or 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 We have a recognition of credit system for foreign language proficiency tests. For more details, please refer to the article on English in Liberal Arts Education in the student handbook.

Note Students must take "Elements of Information Literacy" provided in the first semester. You can take the "Exercise in Information Literacy" provided in the second semester only if you fail to obtain credit for "Information Utilization Basics."

Note Students must take both Experimental Methods and Laboratory Work 1credit and Experimental Methods and Laboratory Work

Note Students can calculate the credits of Basic English Usage.

Required subjects

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Request Subjects

											3rd grade									
															Spring		Fall			
				1T	2T	3T	4T	1T	2T	3T	4T	1T	2T	3T	4T	1T	2T	3T	4T	
Applied Mathematics I	2					4														
Applied Mathematics II	2							4												
Applied Mathematics III	2								4											
Engineering Mathematics A	2											4								
Probability and Statistics	2							4												
Environmental Theory	2									2	2			2	2					1
Basic Engineering Computer Programming	2										4	4								2
Synthesis of Applied Mathematics	2									4										
Technical English	1									4										
Creation of Architectural Space	2					4														
Lifestyle and the city	2					4														
Exercise of Mathematics	2												4							
Exercise of Technical English	1												4							
Civil and Environmental Engineering and Engineer's Ethics	2														4					
Strength of Materials	2								4											
Exercise of Strength of Materials	1								4											
Structural Mechanics	2									4										
Exercise of Structural Mechanics	1									4										
Hydraulics	2									4										
Exercise of Hydraulics	1									4										
Soil Mechanics	2										4									
Exercise of Soil Mechanics	1										4									
Materials Science	2								4											
Concrete Engineering	2										4									
Fluid Mechanics	2							4												
Infrastructure Planning	2										4									
Fundamentals of Environmental Science	2										4									
Land Survey	2							4												
Exercise of Surveying	2							8												
Field Work at Construction Sites	1													4						
Experiments in Civil and Environmental Engineering	2												8							
Building Material	2									4										
Experiments on Building Materials	1											3	3							
Introduction of Building Structure	2								4											

Required subjects
Compulsory Elective subjects
Request Subjects

Class Subjects	Credits	Type of course registration		Class Hours/ Week																Note
		Civil and Environmental Engineering	Architecture and Building Engineering	1st grade				2nd grade				3rd grade				4th grade				
				Spring		Fall		Spring		Fall		Spring		Fall		Spring		Fall		
				1T	2T	3T	4T	1T	2T	3T	4T	1T	2T	3T	4T	1T	2T	3T	4T	
Architectural Project and Drawing I	2							6	6											
Architectural Project and Drawing II	2									6	6									
Architectural Structural Mechanics I	4							4	4											
Architectural Structural Mechanics II	4									4	4									
Vibration Theory of Buildings	2														4					
Reinforced concrete structure	2												4							
Geotechnical and Architectural Foundation Engineering	2														4					
Building Administration	2												4							
Field Exercises of Building	1											1	1	1	1					
History of Japanese Architecture	2									4										
Architectural Planning	2								4											
Town Planning	2										4									
Architectural Environments I	2							4												
Architectural Environments II	2									4										
Exercises in Environmental Science	1												4							
History of contemporary architecture I	2											4								
Field Work in Architecture	1													3	3					
Computer Technology in Architecture	2										4									
Design Concepts of Steel Structures	2									4										
Architecture drawings	2							4												

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

Required subjects

, , Compulsory Elective subjects

Class Subjects	Credits	Type of course registration	Class Hours/ Week																Note
			1st grade				2nd grade				3rd grade				4th grade				
			Spring		Fall		Spring		Fall		Spring		Fall		Spring		Fall		
			1T	2T	3T	4T	1T	2T	3T	4T	1T	2T	3T	4T	1T	2T	3T	4T	
Methods of Structural Analysis	2												4						
Earthquake Resistant Structures	2													4					
Structural Design	2															6			
Building Construction	2										4								
Disaster Prevention of Buildings	2														4				
Seminar in Architecture I	2											4							
Design of Steel Structures	2										4								
History of contemporary architecture II	2												4						
Architectural Planning II	2									4									
Building Services I	2										4								
Building Services II	2												4						
Architectural Project and Drawing III	3										9	9							
Architectural Project and Drawing V	2														6	6			
Architectural Project and Drawing IV	3												9	9					
Seminar in Architecture II	2												4						
Seminar in Architecture III	1														1	1			
Ethics of Architecture	2													4					
Graduation Thesis	5																		

Academic Achievements in Architecture and Building Engineering

The Relationship between Evaluation Items and Evaluation Criteria

		Excellent	Very Good	Good
(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)
(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)	Understand 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 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)
(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.
(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	Understand 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 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.)
(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. ((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.)
(H)	Understanding on education for self-development and self-improvement. (Being able to collect materials related to recent problems)	Understand and be able to explain education for self-development and self-improvement. (Being able to collect materials related to recent problems)	Understand education for self-development and self-improvement. (Being able to collect materials related to recent problems)	Understand outline of education for self-development and self-improvement. (Being able to collect materials related to recent problems)
(I)	Understanding on cultivation of ability for planning and exercising (Being able to accomplish their subjects and to summarize the results within a time			

Sheet 4 Curriculum Map

Academic Achievement	Evaluation Items

[redacted]

Basic Specialized Subjects Specialized Subjects	Basic Specialized Subjects Specialized Subjects	Specialized Subjects	Graduation Thesis (　) Specialized Subjects	Graduation Thesis (　)

sive Abilities (F)

on cultivation of design capacity.

Comprehensive Abilities (I)	(I) Understanding on cultivation of ability for planning and exercising			Architectural Project and Drawing I ( )	Architectural Project and Drawing II ( ) Design Concepts of Steel Structures	Architectural Project and Drawing III ( ) Exercises in Environmental Science	Architectural Project and Drawing IV (○) Field Exercises of Building Field Work in Architecture Project Management in Building	Graduation Thesis ( ) Architectural Project and Drawing V Structural Design (○ Seminar in Architecture III	Graduation Thesis ( )

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