The College of Policy and Planning Sciences (CPPS) Study Planning Guide AY2022

Table of Contents

Message on the Publication of the CPPS Study Planning Guide AY2022 …… 2

Goals of Education and Characteristics of Education Planning at CPPS …… 3

College of Policy and Planning Sciences Competence List …… 6

College of Policy and Planning Sciences Curriculum Map …… 7

Timetable …… 9

Three majors

- Social and Economic Sciences …… 15
- Management Science and Engineering …… 19
- Urban and Regional Planning …… 21

Schedules

- Graduation Thesis Schedule in AY2022 [for 4th-year Students] …… 32
- The Process of Determining Graduation Thesis Topics and Supervisors in AY2023 [for 3rd-year Students] …… 33
- Major Assignment Schedule in AY2022 [for 2nd-Students] …… 34

Supplement to the CPPS Curriculum …… 35

Q&A about Courses/Advancement …… 37

Curriculum for the Qualification to Take *KENCHIKUSHI* License Examinations …… 39

Message on the Publication of the CPPS Study Planning Guide AY2022

The CPPS Study Planning Guide AY2022 is a reference material for students to systematically take courses at the College of Policy and Planning Sciences toward major assignment and the graduation thesis. Therefore, it provides information related to areas and available courses, in addition to major assignment and the graduation thesis. For the details of each course, please also refer to the latest KdB information and the “Course Catalog for Undergraduate Student”.

We expect that it will help you have a fruitful time at this college.

April 2022

Arita Tomokazu

Chair, College of Policy and Planning Sciences,
University of Tsukuba

SHIGENO Maiko

Chairperson of the Curriculum Committee,
College of Policy and Planning Sciences

Goals of Education and Characteristics of Education Planning at CPPS

1) Educational purpose

To develop global human resources with the extensive knowledge needed to realize a sustainable society and specialties from the basics to applications of science and technology, flexible thinking, competencies for intellectual creation and problem identification/-solving, broad perspectives, rich humanity, and collaboration skills to work in teams, in order to contribute to the international society.

2) Educational purposes and desired students

(Educational purposes)

We develop human resources with a thinking ability integrating arts and sciences and skills of analyzing and utilizing data, needed for engineering, practical, and strategic analyses of various social problems, where human behaviors are intricately intertwined, and the skills to design systems for comprehensive problem-solving.

(Desired students)

Acquiring the interdisciplinary thinking needed to recognize and manage a wide variety of social problems that occur in society/economy, companies/management, and cities/regions; and desiring to contribute to the international society.

3) Diploma Policy

We confer a bachelor's degree (of policy and planning sciences) to students, who have acquired the knowledge and skills (general competences) specified based on the goals of education in undergraduate courses at the University of Tsukuba, and have achieved the following goals, meeting the purposes of human resource development at the College of Policy and Planning Sciences, School of Science and Engineering.

- Having a basic understanding and insight into social systems, such as economy, enterprises, and cities, and being able to propose specific policies to reduce uncertainty in the social environment based on evidence.
- Being able to use one's knowledge of mathematics (calculus/linear algebra), statistics (data analysis), and information technology (programming) as a tool to solve various problems facing complex societies.
- Being able to identify the essences of global problems in modern society.
- Being able to flexibly fulfill social demands from multiple perspectives, such as economics, management science and engineering, and urban and regional planning.
- Being able to comply with professional ethics as an expert/engineer in the field of economics, management science and engineering, or urban and regional planning.
- Having objective and persuasive communication skills.
- Having skills for basic communication using English.
- Being able to act cooperatively as a member whenever team collaboration is required.
- Being able to explore issues autonomously, and learn independently and continuously.

4) Curriculum Policy

As a program to obtain academic achievements related to the bachelor's degree (in policy and planning sciences), we plan education and implement these plans based on the following policies.

(General policy)

The complex and diverse problems facing modern society are no longer manageable for individual areas of traditional scholarship on their own. With a view to addressing such a situation,

we organize 3 majors, Social and Economic Sciences, Management Science and Engineering, and Urban and Regional Planning, and help students acquire both specialized and interdisciplinary skills. We place an emphasis on the scientific and empirical aspects of policy- or project-related decision-making processes for the national government, local governments, corporate organizations, and communities as a goal. Therefore, at this college, students decide on a major to acquire more specialized knowledge and skills not at the time of enrolment, but during the fall semester of the second year after taking various courses from the first year to the spring semester of the second year. It is also possible for them to choose a minor, in addition to these majors.

(Course sequence policy)

- Until the spring semester of the second year, students mainly take basic courses (foundations) required for advanced learning (major subjects) at this college, including those serving as introductory to the 3 majors.
- From the fall semester of the second year, they belong to one of the 3 majors, and take major subjects. To show the structure of each specialized field in an easy-to-understand manner, we divide major subjects in each major into groups of courses called “areas”, and encourage students to acquire interdisciplinary skills. This program also allows students with excellent academic performance to graduate in their third year.
- After advancing to the fourth year, students conduct research for their graduation thesis throughout the year. They select supervisors from researchers in various specialized fields, such as engineering, economics, management, statistics, psychology, and sociology, to conduct theoretical and practical studies.

(Implementation policy)

To help students autonomously learn theories and practices, seminars are held in all areas of each major. Thoroughly practicing presentation and discussion skills through these seminars, they can also acquire the skills needed to develop engineering, practical, and strategical solutions to various problems that occur in society.

(Policy for evaluation of learning outcomes)

We have also defined criteria for the acquisition of the 9 skills listed in the Degree Conferral Policy, and show skill acquisition goals in the syllabus for each course. With regard to the evaluation of skill acquisition, we measure the achievement level based on the credit acquisition status in these courses. We decide whether or not to confer a degree comprehensively based on the results of graduation thesis evaluation and the status of acquiring credits required for graduation.

(Characteristics)

We provide opportunities for real-world problem-solving activities in cooperation with national and local governments, private companies, and local communities. In addition, for each major, we have developed specialized exercises to help students develop their skills in analyzing and utilizing data.

5) Guaranteeing and improving the quality of education

- We present course descriptions, course goals, and schedules/course plans in the CPPS Syllabi, while objectively assessing academic performance to guarantee the achievement of sufficient levels of specialty and interdisciplinarity by the time of graduation.
- We also evaluate all lectures and seminars, and share the results with students, in addition to all faculty, requiring the submission of improvement plans by the faculty in charge of lectures/seminars scored 40 or less (full score: 100). Furthermore, as a measure for faculty development, we also hold a meeting to exchange opinions with students during each term, and improve the contents and methodologies of lectures/seminars.
- When several faculties are in charge of the same course, we minimize variations in assessment

results among these faculty by adjusting the level of difficulty/progress of learning among their classes and adopting common questions for examinations.

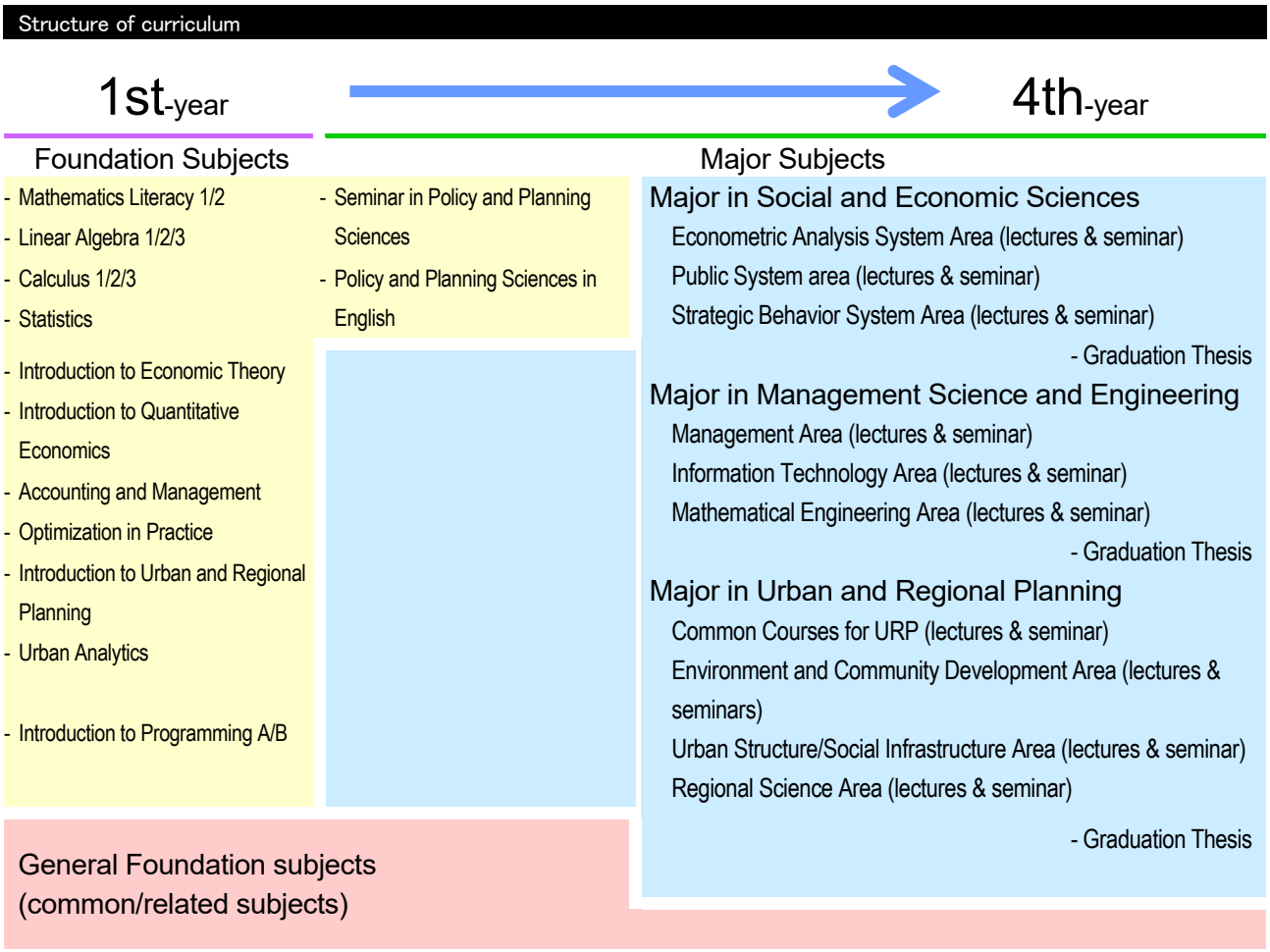


Fig.1 Curriculum structure at CPPS

College of Policy and Planning Sciences Competence List
＜Bachelor of Policy and Planning Sciences＞

Generic Competences (Bachelor Program)

No.	Knowledge and abilities	Content
1	Communication ability	Communication ability to use the mother tongue and foreign languages properly and make presentations, etc. using various media
2	Ability for critical and creative thinking	Ability to think critically and creatively based on systematic understanding of general and specialized knowledge
3	Data and information literacy	Ability to properly analyze and process various events and information using quantitative methods, computers, etc.
4	Broad perspective and international character	Ability to broadly understand culture, society, nature, and materials and understand and respect different cultures and be not only involved in one's own expertise
5	Mental and physical health, humanity and ethics	Ability to maintain mental and physical health through the understanding, practice, etc. of arts and sports and be conscious of one's responsibility and put it into practice as a citizen with humanity and ethics
6	Cooperative, independent and autonomous attitudes	Ability to keep learning and act autonomously while dealing with a situation through team work and leadership and practicing self-management

Specific Competences

No.	Knowledge and abilities	Content
1	Basic understanding and insight into social systems	Basic understanding and insight into social systems
2	Mathematics, statistics, and information technology for solving complex social problems	Knowledge of mathematics, statistics, and information technology as a tool to solve various problems facing complex societies
3	Ability to analyze global issues	Ability to identify the essences of global problems in modern society
4	Ability to fulfill social demands	Ability to flexibly fulfill social demands from multiple perspectives
5	Communication skills	Objectively persuasive communication skills
6	Problem-solving skills	Ability to explore issues autonomously, and learn independently and continuously

Curriculum Map of the College of Policy and Planning Sciences <Bachelor of Policy and Planning

Course Category		Course Name	Credits	Generic Competences						Specific Competences					
				1	2	3	4	5	6	1	2	3	4	5	6
				Communication ability	Ability for critical and creative thinking	Data and information literacy	Broad perspective and international character	Mental and physical health, humanity, and ethics	Cooperative, independent, and autonomous attitudes	Basic understanding and insight into social systems	Mathematics, statistics, and information technology for solving complex social problems	Ability to analyze global issues	Ability to fulfill social demands	Communication skills	Problem-solving skills
General Foundation Subjects	Common Foundation Subjects	Multidisciplinary Subjects(inc. Freshmen Seminar and Invitation	2. 0												
		Multidisciplinary Subjects(exc. Freshmen Seminar and Invitation	1. 0												
		Physical Education	3. 0												
		1st Foreign Language(English)	4. 0												
		2nd Foreign Language	0. 0												
		Information Literacy	4. 0												
		Japanese Language	0. 0												
		Art	0. 0												
	Specific Foundation Subjects	Subjects that are offered by other Schools and Colleges as specified	6. 0												
	Extracurricular activities														
	Subtotal		20. 0												
Foundation Subjects for Major		Seminar in Policy and Planning Sciences	3. 0	○	○	○	○		○	○	○		○	○	
		Policy and Planning Sciences in English	2. 0	○			○							○	
		Introduction to Programming A	3. 0			○				○	○				○
		Introduction to Programming B	3. 0			○				○	○				○
		Introduction to Economic Theory	1. 0		○		○			○	○				
		Introduction to Quantitative Economics	1. 0		○	○	○			○	○	○	○		
		Accounting and Management	1. 0		○	○	○			○		○	○		
		Optimization in Practice	1. 0		○	○	○			○	○		○		
		Introduction to Urban and Regional Planning	1. 0		○		○			○	○	○	○		○
		Urban Analytics	1. 0		○	○	○			○	○	○	○		○
		Mathematics Literacy 1	1. 0							○					
		Mathematics Literacy 2	1. 0							○					
		Linear Algebra 1	1. 0							○					
		Linear Algebra 2	1. 0							○					
		Linear Algebra 3	1. 0							○					
		Calculus 1	1. 0							○					
		Calculus 2	1. 0							○					
		Calculus 3	1. 0							○					
		Statistics	2. 0			○				○	○				
	Subtotal		27. 0												
Major Subjects	Econometric Analysis System Area	Seminar in Social and Economic Planning:Quantitative Systems	2. 0	○	○	○			○		○			○	○
		Econometrics	2. 0		○	○				○	○				
		Macro-econometrics	2. 0		○	○				○	○				
		Money, Financial System and Economy	2. 0		○	○				○			○		
		Financial Risk Management	2. 0		○	○	○			○	○				
		Time Series Analysis	2. 0		○	○	○			○	○				
		Japanese Economy	2. 0		○	○				○			○		
	Public System Area	Seminar in Social and Economic Planning:Public System Area	2. 0	○	○	○	○		○		○	○		○	○
		Macroeconomics	2. 0		○		○			○		○			
		International Finance	2. 0		○		○			○		○	○		
		Economic Dynamics	2. 0		○		○			○	○	○			
		Public Economics	2. 0		○		○			○		○	○		
		Public Finance	2. 0		○		○			○		○	○		
	Strategic Behavior System Area	Seminar in Social and Economic Planning:Strategy and Behavior	2. 0	○	○	○			○		○			○	○
		Microeconomics	2. 0		○		○			○	○				
		Game Theory	2. 0	○	○					○	○				
		Decision Theory	2. 0		○	○				○	○				
		Evolutionary Game Theory	2. 0		○	○				○	○				
		Behavioral Economics	2. 0		○	○				○			○		
		Empirical Microeconomics	2. 0		○	○					○	○			
	common courses for SES	Special Lectures on Socio-Economic Systems I (Introduction	1. 0		○					○					
		International Trade	2. 0				○								
		Industrial Organization	2. 0			○	○						○		
	Management Area	Seminar on Management Science	2. 0	○	○	○	○	○	○	○		○	○	○	○
		Industrial and Organizational Psychology	2. 0		○	○	○	○	○	○		○			
		Marketing	2. 0		○	○	○			○	○	○			
		Finance	2. 0		○	○	○			○	○	○			
		Management	2. 0		○		○			○		○	○		○
		Production and Quality Management	2. 0		○	○	○			○	○	○			

Curriculum Map of the College of Policy and Planning Sciences <Bachelor of Policy and Planning

Course Category		Course Name	Credits	Generic Competences						Specific Competences					
				1	2	3	4	5	6	1	2	3	4	5	6
				Communication ability	Ability for critical and creative thinking	Data and information literacy	Broad perspective and international character	Mental and physical health, humanity, and ethics	Cooperative, independent, and autonomous attitudes	Basic understanding and insight into social systems	Mathematics, statistics, and information technology for solving complex social problems	Ability to analyze global issues	Ability to fulfill social demands	Communication skills	Problem-solving skills
	Information Technology Area	Seminar on Information Technology	2. 0	○	○	○	○		○		○		○	○	○
		Computer Science	2. 0		○	○					○				
		Simulation	2. 0		○	○					○				
		Information Networks	2. 0		○	○				○	○				
		Data Analysis	2. 0		○	○	○				○	○			
		Machine Learning for Management	2. 0		○	○					○				
	Mathematical Engineering Area	Seminar on Mathematical Engineering	2. 0	○	○	○	○	○	○	○	○		○	○	○
		Mathematical Optimization	2. 0		○	○					○				
		Applied Probability	2. 0		○	○					○				
		Discrete Mathematics	2. 0		○	○					○				
		Mathematical Statistics	2. 0		○	○					○				
	common courses for MSE	Workshop on Finding Problems and Solutions	2. 0	○	○	○	○	○	○	○	○	○	○	○	○
	Environment and Community Development Area	Seminar in Living Environment Planning	4. 0	○	○				○				○	○	○
		Planning of Housing and Habitat	2. 0		○		○			○		○	○		
		Design of Urban Space	2. 0		○	○				○		○	○		
		Landscape and Environmental Planning	2. 0		○		○			○		○	○		
		New Wave of Urban Planning	2. 0		○		○			○		○	○		
		Urban Multicultural Planning	2. 0		○		○			○		○	○		
	Urban Structure/Social Infrastructure Area	Seminar in Urban Masterplan	6. 0	○	○	○	○	○	○	○	○		○	○	○
		Urban Land Use Planning	2. 0		○		○			○		○	○		
		Evaluation of Urban Environment	2. 0		○	○	○			○		○	○		
		Urban Disaster Management	2. 0		○		○			○	○	○	○		
		Transportation Planning	2. 0		○		○			○	○	○	○		
	Regional Science Area	Seminar in Urban and Regional Economics	3. 0	○	○	○	○		○	○	○		○	○	○
		Urban Economics	2. 0		○	○	○			○		○	○		
		Regional Management and Public Administration	2. 0		○		○			○		○	○		
		Policy and Public Works Evaluation	2. 0		○	○	○			○		○	○		
		Urban and Regional Analysis	2. 0		○	○				○	○				
		Theory and Practice of Environmental Policy	2. 0		○		○			○		○	○		
	common courses for URP	Internship on Urban and Regional Planning	2. 0	○	○	○	○	○	○				○	○	○
		Seminar in Information Systems:Urban and Regional	3. 0			○			○	○	○				
		Principles of Urban Planning	2. 0		○		○			○					
		History of Urban Planning	2. 0		○		○			○					
		Independent Study : Related laws and regulations on building	1. 0		○		○			○					
		Independent Study : Building Economy	1. 0		○		○			○		○	○		
		Building Construction	1. 0		○		○			○		○	○		
		History of Urban Planning Thought	2. 0		○		○			○		○	○		
		Practice for Architecture and urban design II	2. 0	○	○	○			○				○	○	○
		Seminar in Urban and Regional Planning	4. 0	○	○	○	○	○	○					○	○
		Empirical Studies on Urban Regional Planning	3. 0	○	○		○		○			○	○	○	○
		Fundamental Drawing	1. 0			○							○	○	○
		Practice for Architecture and Urban Design I	2. 0	○	○				○				○	○	○
	Common for CPPS	Graduation Thesis in Policy and Planning Sciences A	4. 0	○	○	○	○	○	○					○	○
		Graduation Thesis in Policy and Planning Sciences B	4. 0	○	○	○	○	○	○					○	○
		Special Graduation Thesis in Policy and Planning Sciences	4. 0	○	○	○	○	○	○					○	○
		Independent Study A	3. 0	○	○	○	○	○	○					○	○
		Independent Study B	3. 0	○	○	○	○	○	○					○	○
	Subtotal		166. 0												
Total			213. 0												

Standard Class Schedule in AY2022: General Foundation/Foundation Subjects (1st-year)

Spring Term (1st-year)

	Monday			Tuesday			Wednesday			Thursday			Friday		
	module			module			module			module			module		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
1							Foreign Language (1st-year)			Information Literacy (Exercises)	Information Literacy (Lectures)		PE (1st-year)		
2		Calculus 1					English (1st-year)						First Year Seminar		
3	English (1st-year)							Introduction to Economic Theory					Mathematics Literacy 1	Linear Algebra 1	
4	Foreign Language (1st-year)														
5				Mathematics Literacy 1	Mathematics Literacy 2	Introduction to Urban and Regional Planning	Invitation to Arts and Sciences			Accounting and Management					
6															

Fall Term (1st-year)

	Monday			Tuesday			Wednesday			Thursday			Friday		
	module			module			module			module			module		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
1							Foreign Language (1st-year)			Data Science			PE (1st-year)		
2			Linear Algebra 3				English (1st-year)								
3	English (1st-year)						Optimization in Practice	Urban Analytics			Introduction to Quantitative Economics		Calculus 2		Calculus 3
4	Foreign Language (1st-year)								Linear Algebra 3						
5							Linear Algebra 2		Calculus 3	Introduction to Programming A		Introduction to Programming B	Statistics		
6															

Standard Class Schedule in AY2022: General Foundation/Foundation Subjects (2nd-year)

Spring Term (2nd-year)

	Monday			Tuesday			Wednesday			Thursday			Friday		
	module			module			module			module			module		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
1	Principles of Urban Planning (URP)									History of Urban Planning (URP)					
2															
3							PE (2nd-year)						Foreign Language (2nd-year)		
4													English (2nd-year)		
5													Seminar in Policy and Planning Sciences		
6															

Fall Term (2nd-year)

	Monday			Tuesday			Wednesday			Thursday			Friday		
	module			module			module			module			module		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
1															
2															
3	Seminar in Urban and Regional Planning (URP)			Seminar in Information Systems:Urban and Regional Planning (URP)		Fundamental Drawing (URP)	PE (2nd-year)						Policy and Planning Sciences in English		
4															
5															
6															

Note: It is available to substitute the Seminar of SEP for the Workshop on Information Systems: Social and Economic Planning which has been closed since 2019.

Standard Class Schedule in AY2022: Major Subjects (2nd-4th-year; Major in Social and Economic Sciences)

Spring Term (2nd-4th-year)

	Monday			Tuesday			Wednesday			Thursday			Friday		
	module			module			module			module			module		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
1				Seminar in SEP: Strategy and Behavior Area			Econometrics/ International Trade*						Seminar in SEP: Quantitative Systems Analysis Area		
2															
3	PE (3rd-year)			Time Series Analysis						International Finance			Behavioral Economics		
4															
5	Evolutionary Game Theory			Microeconomics											
6															

Fall Term (2nd-4th-year)

	Monday			Tuesday			Wednesday			Thursday			Friday		
	module			module			module			module			module		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
1				Macroeconomics			Game Theory			Macro-econometrics			Economic Dynamics		
2															
3	PE (3rd-year)									Money, Financial System and Economy					
4				Industrial Organization											
5	Financial Risk Management			Industrial Organization/ Seminar in SEP: Public System Area									Empirical Microeconomics		
6				Seminar in SEP: Public System Area											

Intensive class: Japanese Economy, Public Economics, Public Finance, Decision Theory and Special Lectures on Socio-Economic Systems I, II, III.
*: "International Trade" is opend in odd-numbered dominical years.

Standard Class Schedule in AY2022: Major Subjects (2nd-4th-year; Major in Management Science and Engineering)

Spring Term (2nd-4th-year)

	Monday			Tuesday			Wednesday			Thursday			Friday		
	module			module			module			module			module		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
1										Finance					
2															
3	PE (3rd-year)		Mathematical Optimization			Production and Quality Management				Discrete Mathematics		Mathematical Optimization	Industrial and Organizational Psychology		Production and Quality Management
4															
5	Information Networks			Seminar on Mathematical Engineering						Applied Probability					
6															

Fall Term (2nd-4th-year)

	Monday			Tuesday			Wednesday			Thursday			Friday		
	module			module			module			module			module		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
1				Data Analysis									Mathematical Statistics		
2															
3	PE (3rd-year)			Management			Simulation			Machine Learning for Management					
4															
5	Seminar on Information Technology			Computer Science						Seminar on Management Science				Workshop on Finding Problems and Solutions	
6															

Note: the Marketing is not opened in 2022.

Standard Class Schedule in AY2022: Major Subjects (2nd-4th-year; Major in Urban and Regional Planning)

Spring Term (2nd-4th-year)

	Monday			Tuesday			Wednesday			Thursday			Friday		
	module			module			module			module			module		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
1	Principles of Urban Planning			Policy and Public Works Evaluation			Evaluation of Urban Environment			History of Urban Planning					
2															
3	PE (3rd-year)			Transportation Planning						Planning of Housing and Habitat			Practice for Architecture and Urban Design I	Seminar in Living Environment Planning	
4															
5	Urban Land Use Planning			Seminar in Urban and Regional Economics						New Wave of Urban Planning					
6															

Fall Term (2nd-4th-year)

	Monday			Tuesday			Wednesday			Thursday			Friday		
	module			module			module			module			module		
	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
1	Landscape and Environmental Planning			Urban Multicultural Planning			Regional Management and Public Administration			Urban Economics			Design of Urban Space		
2															
3	PE (3rd-year)			Theory and Practice of Environmental Policy						Urban and Regional Analysis			Seminar in Urban Masterplan		
4															
5	Practice for Architecture and urban design II			Urban Disaster Management		History of Urban Planning Thought				Empirical Studies on Urban Regional Planning		History of Urban Planning Thought			
6															

Intensive class: Related laws and regulations on building, Building Economy, Building Construction, Internship on Urban and Regional Planning

Fixed Class Schedule for Collage of Policy and Planning Sciences in AY2022

Period		Monday						Tuesday						Wednesday						Thursday						Friday					
		Spr.-A	Spr.-B	Spr.-C	Fall-A	Fall-B	Fall-C	Spr.-A	Spr.-B	Spr.-C	Fall-A	Fall-B	Fall-C	Spr.-A	Spr.-B	Spr.-C	Fall-A	Fall-B	Fall-C	Spr.-A	Spr.-B	Spr.-C	Fall-A	Fall-B	Fall-C	Spr.-A	Spr.-B	Spr.-C	Fall-A	Fall-B	Fall-C
1	1st													Foreign Language (1st-year)			Foreign Language (1st-year)			Informaiton Literacy		The Ideal and The Real of Education	Data Science		Development of Child and Youth	PE			PE		
	2nd																														
	3rd												Practice of Educational Counseling	Subject Teaching Methods		Subject Teaching Methods	Subject Teaching Methods		Subject Teaching Methods	Subject Teaching Methods		Subject Teaching Methods	Subject Teaching Methods		Subject Teaching Methods						
	4th																														
2	1st													English (1st-year)			English (1st-year)			Informaiton Literacy		The Ideal and The Real of Education	Data Science		Development of Child and Youth	First Year Seminar			Teaching Profession II		
	2nd	Museology I			Museology II																				Special Activities						
	3rd												Practice of Educational Counseling	Subject Teaching Methods		Subject Teaching Methods	Subject Teaching Methods		Subject Teaching Methods	Subject Teaching Methods		Subject Teaching Methods	Subject Teaching Methods		Subject Teaching Methods						
	4th																														
3	1st	English (1st-year)			English (1st-year)					Introduction to History of Education			Psychology of Learning																		
	2nd	Museology III			Museology II									PE			PE		Teaching Profession II	Moral Education			Moral Education		Special Activities	Foreign Language (2nd-year)			Foreign Language (2nd-year)		
	3rd	PE			PE																										
	4th																														
4	1st	Foreign Language (1st-year)			Foreign Language (1st-year)					Introduction to History of Education	Introduction to School Management		Psychology of Learning																		
	2nd												Teaching Profession II							Introduction to Philosophy CI			Introduction to Philosophy BII			English (2nd-year)			English (2nd-year)		
	3rd																														
	4th																														
5	1st													Invitaiotn toArts and																	
	2nd						Special Activities						Special Activities													Museum Exhibition I		Conservation for Museums I	Conservation for Museums II		Publicity and information science for Museology
	3rd	Career Guidance		Foundation of Educational Counseling	Career Guidance			Foundation of Educational Counseling/ Career Guidance			Foundation of Educational Counseling/						Curriculum and the Course of Study			Subject Teaching Methods			Subject Teaching Methods							
	4th																														
6	1st	Teaching Profession I			Education Law and System									Invitaiotn toArts and																	
	2nd	Moral Education I			Moral Education II		Special Activities																			Museum Exhibition II		Conservation for Museums I	Fundamentals of Museum Education		Publicity and information science for Museology
	3rd			Foundation of Educational Counseling	Curriculum and the Course of Study			Special Needs Education/ Foundation of			Foundation of Educational Counseling			Curriculum and the Course of Study						Subject Teaching Methods/ Teaching Methods and Techniques			Subject Teaching Methods						Special Needs Education		
	4th																														

* "Constitutional Law": intensive class for 2nd-year students

Major in Social and Economic Sciences

This major defines social economics as systems, and it helps students understand the structures of socio-economic systems and conditions for these to smoothly function using economic and engineering approaches, find socio-economic problems, and learn appropriate policies for problem-solving.

For this purpose, it consists of the following 3 areas:

[Econometric Analysis System Area]

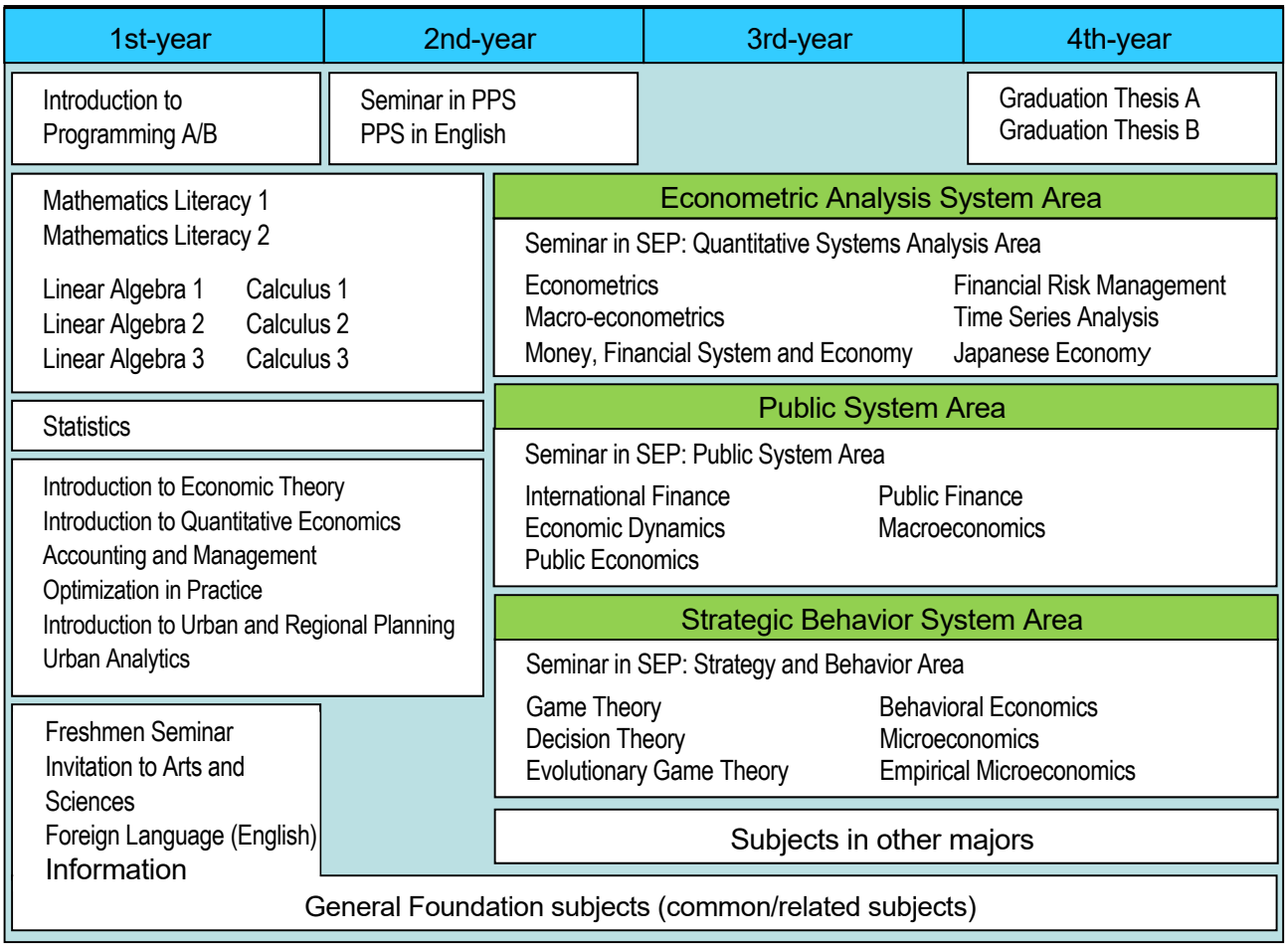
Students explore solutions to socio-economic problems, adopting quantitative approaches. They discuss financial issues by analyzing data mainly using econometric techniques.

[Public System Area]

Students discuss appropriate socio-economic systems in contemporary economics. They learn about the political role of the public sector in addressing market failures and income inequality.

[Strategic Behavior System Area]

Students learn about the most important elements of a socio-economic system: human decision-making and strategic behaviors, as a basis for policy assessment/ formulation to solve socio-economic problems.



Econometric Analysis System Area

The Econometric Analysis System area helps students explore solutions to various problems in socio-economics, adopting quantitative approaches. Knowledge of mathematics is indispensable for all of the courses listed below, as they are based on data analysis. It is also desirable for students to have learned basic economics as a basis for logically grasping real society, and performing effective analysis. We particularly recommend that students in this area take [Econometrics] as a core course.

Course name	Course description	Target year
Seminar in SEP: Quantitative Systems Analysis Area	In this course, students will learn the theory of statistical analysis and measurement techniques used in empirical research through data analysis.	2 – 4
Econometrics	This course will give lectures on the theory of regression analysis that is the basis of econometrics, presupposing knowledge of statistics (statistical estimation/ hypothesis-testing) and calculus (partial differentiation).	2 – 4
Macro-econometrics	This course will explain the econometric methods needed for economic time-series data analysis. It will also give some examples of application to macroeconomics and financial analysis, as necessary.	2 – 4
Money, Financial System and Economy	In this course, students will discuss the roles of finance and monetary policies in the economy by theoretically and empirically analyzing financial systems using analytical methods called micro-/macroeconomics.	2 – 4
Financial Risk Management	In this course, students will learn corporate finance. Specifically, they will systematically discuss the connections among corporate financing, investment decisions, investor returns, and corporate governance.	2 – 4
Time Series Analysis	This course will provide an overview of various time-series analytical methods used for empirical analysis. Students will also learn specific application methods through data analysis using statistical software.	2 – 4
Japanese Economy	In this course, students will deepen their understanding of the current state and challenges of the Japanese economy using various economic indicators.	2 – 4

Public System Area

Externalities, imperfect competition, and public goods supply may lead to market failures in the economy. Market mechanisms do not result in fair income distribution generally. In the Public System area, students will discuss the role of the public sector in correcting these market failures and income inequality from socio-economic perspectives, and comprehensively learn through multiple lectures and seminars. It is particularly recommended that students in this area take [Macroeconomics] and [Public Economics] as core courses.

Course name	Course description	Target year
Seminar in SEP: Public System Area	In this course, students will learn methods often used for empirical research in the field of public economics. They will analyze socio-economic phenomena using actual data and computers.	2 – 4
International Finance	In this course, students will first learn national economic calculation and balance of payments accounting as basic knowledge indispensable for understanding international finance, and then about the relationship between foreign exchange and financial markets, which is key to analysis. They will also deepen their understanding of the determinants of short/long-term exchange rates and the mechanism of interaction between international finance and fiscal/monetary policy.	2 – 4
Economic Dynamics	This course will discuss how the economy works. Students will mainly learn about market stability, economic growth theory, and dynamics of information in games.	2 – 4
Public Economics	In this course, students will learn the role of the government in the market economy, as well as the micro- and welfare economic basics of public economic policy.	2 – 4
Public Finance	This course will give lectures on the basic themes of “finance”, such as fiscal systems, government expenditure, taxation, budget deficit and government debt, social security, and fiscal policy, from both theoretical and institutional perspectives.	2 – 4
Macroeconomics	In this course, students will observe how the gross domestic product, interest rate, and growth rate are determined in the economy of a country. They will also discuss how fiscal and monetary policies implemented by the government and central banks influence economic activities.	2 – 4

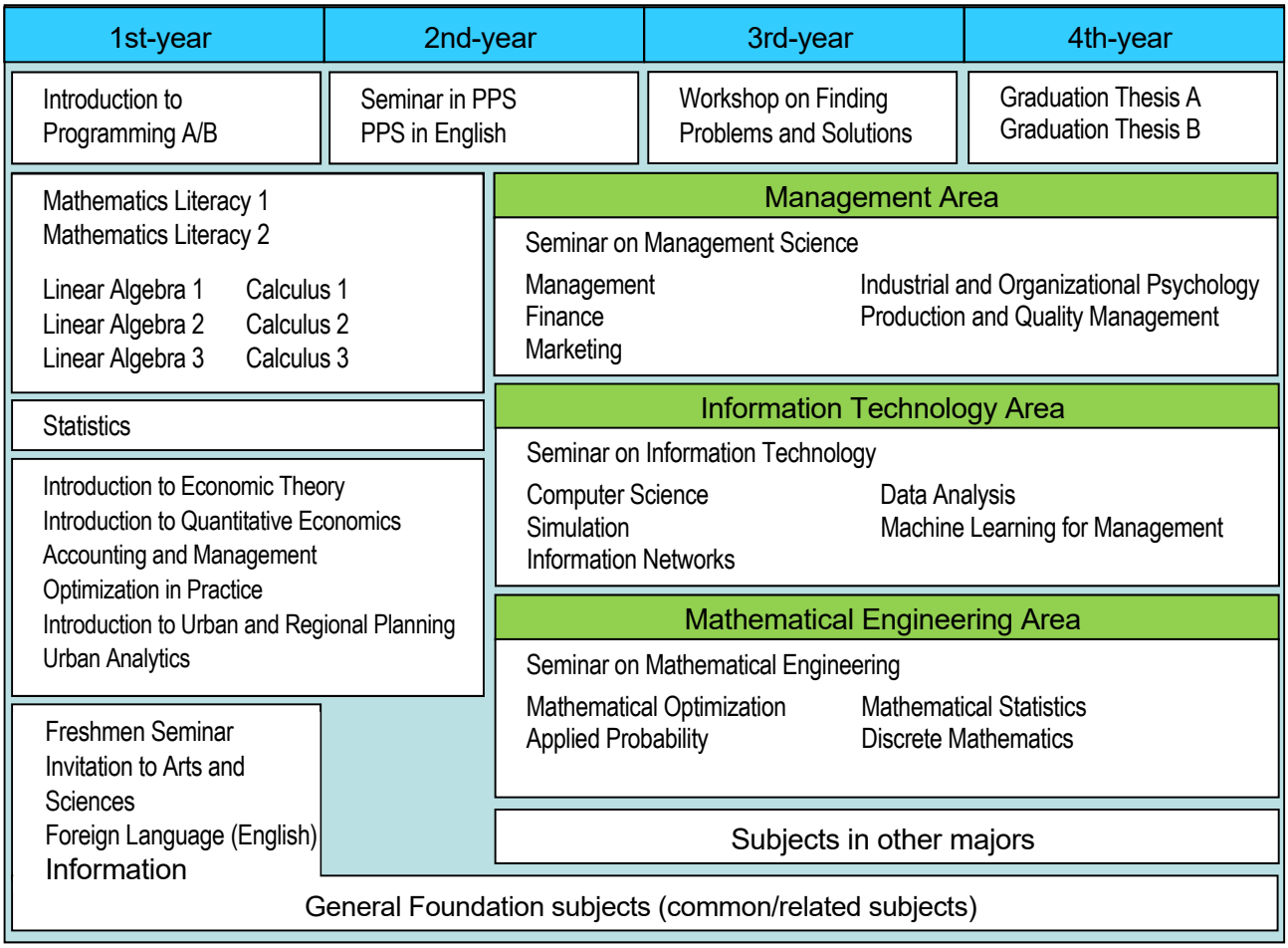
Strategic Behavior System Area

Human beings are the constituent member of society, and “human decision-making/strategic behaviors” are the basis of all social sciences. In the Strategic Behavior System area, students learn the theory of human decision-making/strategic behaviors from various angles. They also experience human strategic behaviors in socio-economics using computers during seminars. It is particularly recommended that students in this area take [Microeconomics] and [Game Theory] as core courses.

Course name	Course description	Target year
Seminar in SEP: Strategy and Behavior Area	In this course, students will learn the basic concepts and methods of statistical processing using the statistical analysis program SPSS through seminars.	2 – 4
Game Theory	In this course, where society is defined as a system consisting of multiple selfish agents, students will learn arithmetic and mathematical basics to analyze situations involving the decision-making of multiple people.	2 – 4
Decision Theory	In this course, students will learn the basic concepts needed to model various decision-making problems in socio-economic issues, including utility models, risk attitudes, trade-offs, social and group decision-making.	2 – 4
Evolutionary Game Theory	This course will provide an overview of Darwin’s evolution theory and learning theories, which have had a great impact on social science. Students will study some example cases to learn the basics of evolutionary game theory, and pursue the mechanism, by which human evolution and learning (adaptation) produce familiar social phenomena.	2 – 4
Behavioral Economics	This course will deal with human economic behavior from psychological perspectives, and provide an overview of the idea of economic behavior and each factor influencing it.	2 – 4
Microeconomics	This course will give lectures on resource allocation in a perfectly competitive market.	2 – 4
Empirical Microeconomics	The goal of this course is to acquire the skills needed for micro-empirical analysis and policy evaluation.	2 – 4

Major in Management Science and Engineering

Management is the discipline to study human activities in society from the perspectives of companies and other organizations, and management science and engineering addresses this issue using engineering/mathematical/scientific methods. To develop human resources with international-level “mathematical ability × IT skills × practical competencies”, the following 3 areas are organized in the Major in Management Science and Engineering: [Management area], [Mathematical Engineering area], and [Information Technology area]. The Management area helps students learn how management is performed in actual settings, and methods to solve problems that occur in such settings through management science and engineering. The Mathematical Engineering area introduces a wide range of engineering and mathematical methods used in management science and engineering. Furthermore, the Information Technology area provides knowledge related to information technology, which is one of the important foundations for modern management activities. Thus, the Major in Management Science and Engineering extensively and comprehensively deals with various fields related to management, mathematical engineering that provides tools to approach these fields, and information technology that supports management. One of the features of this major is [Workshop on Finding Problems and Solutions], a compulsory subject that serves as a pre-stage of graduation thesis for third-year students.



Compulsory course

Course name	Course description	Target year
Workshop on Finding Problems and Solutions	In this workshop, students will determine their themes using the basic knowledge acquired in the Major in Management Science and Engineering, and experience a series of processes consisting of modeling, deriving solutions, and examining solutions, as well as holding discussions and practicing presentations. To help them develop insight into out-of-school activities, case study lectures given by invited people, who are active in society, and exchange presentation meetings with students from other universities are also scheduled.	3 – 4

Management Area

The educational goal of the Management area is to develop human resources with the ability to grasp problems occurring in the actual settings of management, and solve them. To achieve this goal, it provides major subjects that represent the field of “management”, as well as management science and engineering. It also helps students acquire the ability to apply their specialty in the actual settings of management, and make appropriate decisions at appropriate times through [Seminar on Management Science].

Course name	Course description	Target year
Seminar on Management Science	Japan’s first industry-academia collaborative seminar addresses AI development for management support. Students will develop and introduce an AI approach to support the management of Welcia Pharmacy and resolve the challenges faced by this pharmacy using actual POS data.	2 – 4
Industrial and Organizational Psychology	In this course, students will extensively review various theories of work motivation using examples of application in actual industrial organizations. They will also deepen their basic understanding of factors that activate and direct human behaviors in organizations.	2 – 4
Marketing	This course will lecture on the theory and practice of marketing management and introduce useful machine learning methods in marketing.	2 – 4
Finance	In this course, lectures on a wide range of important finance-related issues, including financial statement analysis, investment decision-making methods, bond and stock valuation, mean-variance portfolio theory, capital asset valuation model, cost of capital estimation, option theory, and risk management, will be given.	2 – 4
Management	In this course, students will learn representative management theories, while understanding the most advanced theories and practice. Through such learning, they will develop insight into the unchangeable in management.	2 – 4
Production and Quality Management	This course will provide an overview of production and quality control. It will also explain statistical quality control methods, inventory theory, and reliability engineering.	2 – 4

Information Technology Area

Information technology supports today's management science and engineering in various situations as a fundamental technology for e-commerce and business information systems, and as a calculation tool for data analysis and simulations. The Information Technology area provides various courses for learning from the theoretical basis of this fundamental technology to examples of its application in management science and engineering.

Course name	Course description	Target year
Seminar on Information Technology	In this course, introductory training on object-oriented programming and computer simulation will be provided during the first and second 5 class sessions, respectively.	2 – 4
Computer Science	In this course, students will learn the basics of data structures, algorithms, and computational complexity. They will also study some example cases of application on computer networks.	2 – 4
Simulation	In this course, students will learn techniques to obtain unbiased data through the minimum possible experiments (experimental designs) and computational techniques for experiments on computers (computer simulations).	2 – 4
Information Networks	This course will explain the basic configurations and forms of networks, as well as protocols and data transmission methods using actual application examples such as e-mail and WWW. It will also explain network security threats and countermeasures, cryptosystems and authentication methods, and key management systems.	2 – 4
Data Analysis	In this course, students will learn the basic principles of statistics, and actually use various techniques for data analysis. They will also practice data analysis through specific programming coding.	2 – 4
Machine Learning for Management	Machine learning methods useful in business data analysis will be widely picked up and taught, such as linear regression, logistic regression, principal component analysis, clustering methods, cross-validation, bootstrap, regularization, decision trees, support vector machines, and deep learning.	2 – 4

Mathematical Engineering Area

With the development of computers, it has become possible to manage a large amount of information in a short time. On the other hand, more advanced mathematical analysis methods are required to present problems, and provide solutions based on this information. In the Mathematical Engineering area, students learn various engineering tools (models) that are powerful weapons in the practice of “proposing scientific management methods”, which is the purpose of management science and engineering. They learn the basic theory of each model through class sessions, and become able to utilize it as “practical knowledge” through seminars.

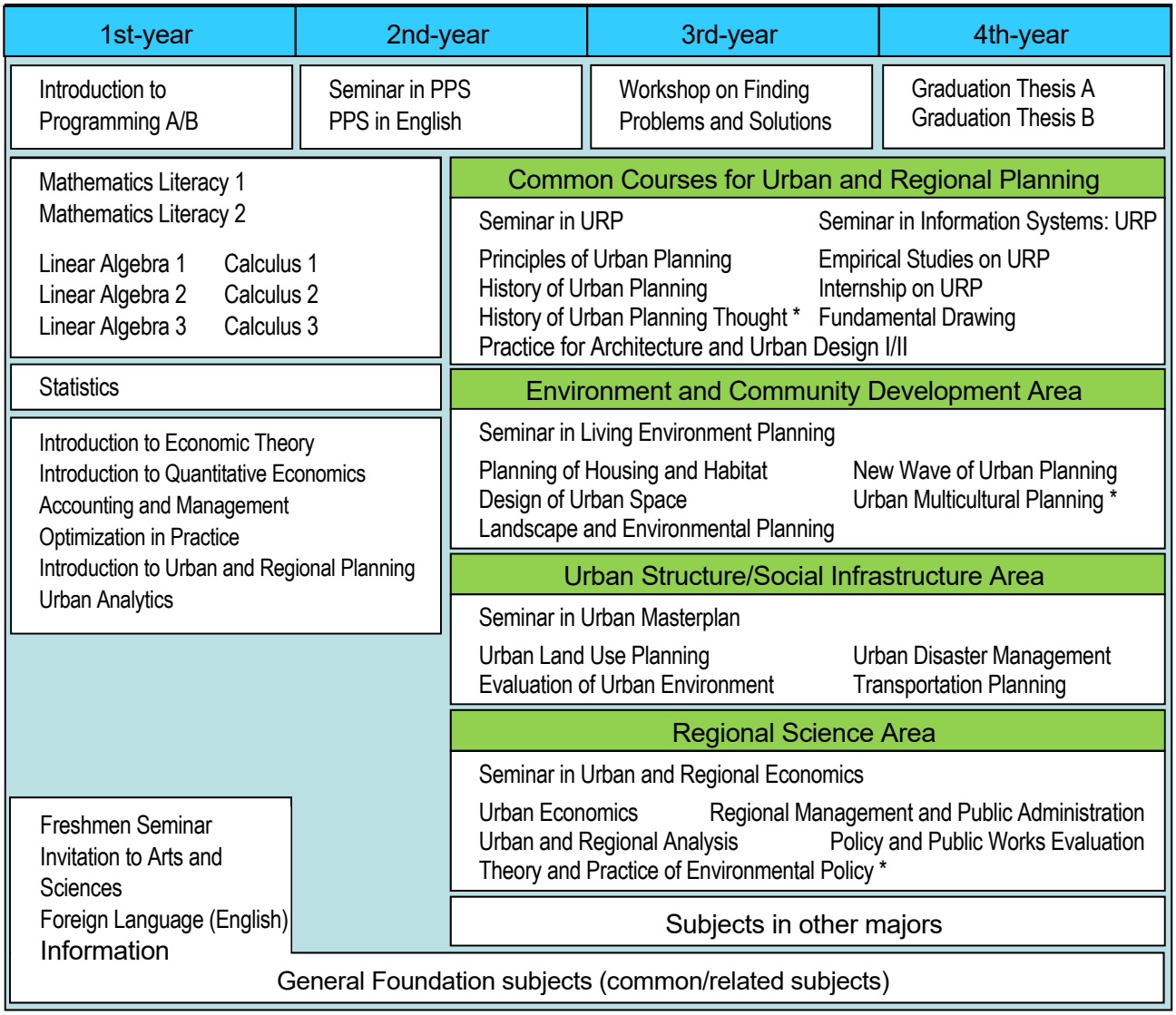
Course name	Course description	Target year
Seminar on Mathematical Engineering	The goal of this course is to establish the basic knowledge of various engineering tools (models) acquired in each course of the Mathematical Engineering area as “usable” knowledge through exercise problem-solving and practical training.	2 – 4
Mathematical Optimization	This course will deal with some themes in mathematical programming (such as linear programming, nonlinear programming, graph theory, and combination optimization), and provide an overview of typical algorithms and basic theories.	2 – 4
Applied Probability	This course will outline the basics of probability theory and Markov chains. It will mainly explain: probability space, random variables, probability distribution, conditional probability, expected values, conditional expected values, simultaneous probability distribution, convergence of random variables, law of large numbers, central limit theorem, and Markov chain.	2 – 4
Mathematical Statistics	In this course, students will acquire a basic knowledge of mathematical statistics using multivariate data through applied methods and applications.	2 – 4
Discrete Mathematics	This course will give introductory/general lectures on discrete mathematics and combinatorics, which are the basis of modeling/analysis of various discrete systems and information processing technology in policy and planning sciences.	2 – 4

Major in Urban and Regional Planning

The curriculum for the Major in Urban and Regional Planning consists of 3 areas: [Environment and Community Development area], [Urban Structure/Social Infrastructure area], and [Regional Science area], in addition to [Common Courses for Urban and Regional Planning].

[Common Courses for URP] help students learn the basics and techniques needed for urban and regional planning generally. The **[Environment and Community Development area]** deals with from relatively familiar aspects, such as housing and living environments, to town development/urban and regional planning. Students learn space design/town development methods and about the relationship between urban space development and the environment. The **[Urban Structure/Social Infrastructure area]** approaches to urban and regional planning on an extensive scale. Students learn about infrastructure such as land and city structures and transportation. Lastly, the [Regional Science area] is an area for learning urban and regional planning mathematically and economically.

Basic training courses in urban and regional planning called “Seminar in Urban and Regional Planning”, “Internship on Urban and Regional Planning”, and “Empirical Studies on Urban Regional Planning”, as well as those for the qualification to take architect licensure examinations, are available in this major.



*: Provided by collaborative staff (from the College of International Studies)

Compulsory course

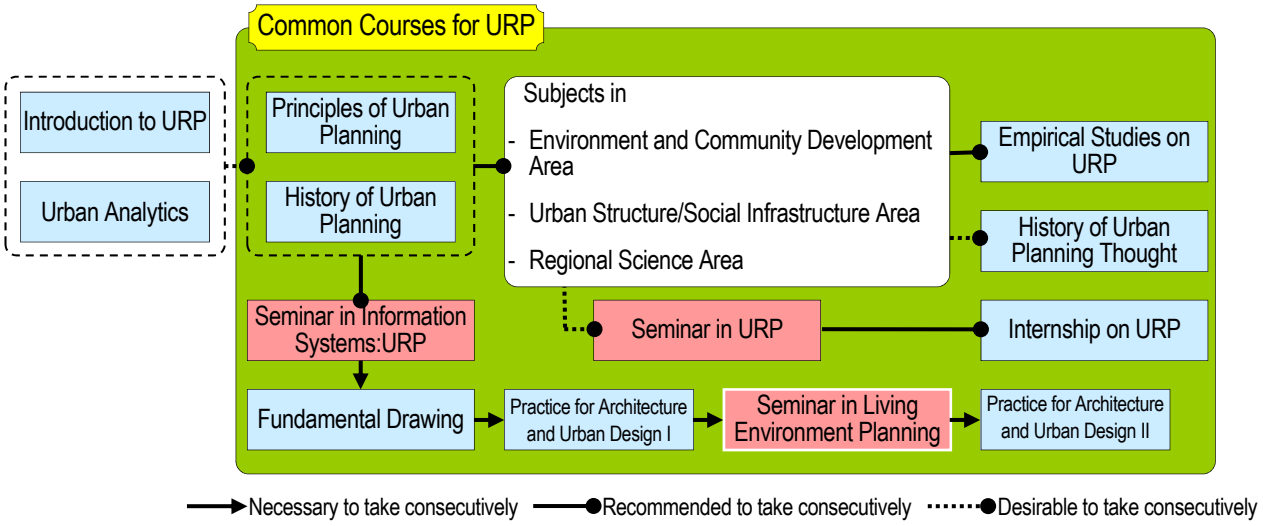
Course name	Course description	Target year
Seminar in Urban and Regional Planning	(See the next page)	2 – 4
Seminar in Information Systems: Urban and Regional Planning	(See the next page)	2

Common Courses for Urban and Regional Planning

[Common Courses for Urban and Regional Planning] help students acquire the basic knowledge and techniques needed for urban and regional planning generally. There are 4 basic/applied courses based on lectures on urban and regional planning, 3 courses providing seminars to learn methods for finding and solving problems in urban and regional planning, and 3 courses providing seminars to acquire architectural design skills; a total of 10 courses.

Course name	Course description	Target year
Principles of Urban Planning	In this course, students will acquire extensive knowledge and wisdom of the nature and challenges of cities, infrastructure and buildings that make up cities, methods for their planning, and their future development through diverse cases in Japan and other countries.	2 – 4 (recommended in 2nd-year)
History of Urban Planning	This course will provide an overview of the history of cities and architecture from ancient times to the present, and clarify the characteristics of various types of space in each era, as well as their relationships with political, economic, social, and technical backgrounds. It will also discuss the preservation of the historical environment.	2 – 4 (recommended in 2nd-year)
Seminar in Urban and Regional Planning	In this course, students will work for specific areas or cities. Through finding problems with city/regional planning and preparing drawings, they will understand the current challenges of regional arrangement.	2 – 4
Seminar in Information Systems: Urban and Regional Planning	In this course, students will learn basic methods for creating and analyzing spatially expansive information (such as maps and drawings) using specialized applications (CAD, GIS).	2
History of Urban Planning Thought*	In this course, students will address basic topics on urban and regional planning, and discuss the ideas and words of the people involved in such planning in detail.	2 – 4
Internship on Urban and Regional Planning	In this course, students will acquire practical problem-finding and -solving abilities through training at government offices, research institutes, companies, or non-profit organizations related to urban and regional planning.	3 – 4
Empirical Studies on Urban Regional Planning	In this course, students will study various cases of urban and regional planning and town development to understand the processes and methods of urban and regional planning in the real world, and discuss necessary insights and conditions for success.	2 – 4 (3rd & 4th-year prioritized)
Fundamental Drawing	This course aims to have the students acquire basic knowledge related to the drawing of essential architectural plans necessary for the designing of houses.	2
Practice for Architecture and Urban Design I	This course aims to have the students acquire the basic knowledge and technique of house designing and planning by learning the basics of wooden buildings through designing wooden houses.	3 – 4
Practice for Architecture and Urban Design II	This course aims have students acquire more advanced designing methods and techniques using basic techniques of design drawing that they have learned.	3 – 4

*: Provided by collaborative staff (from the College of International Studies)

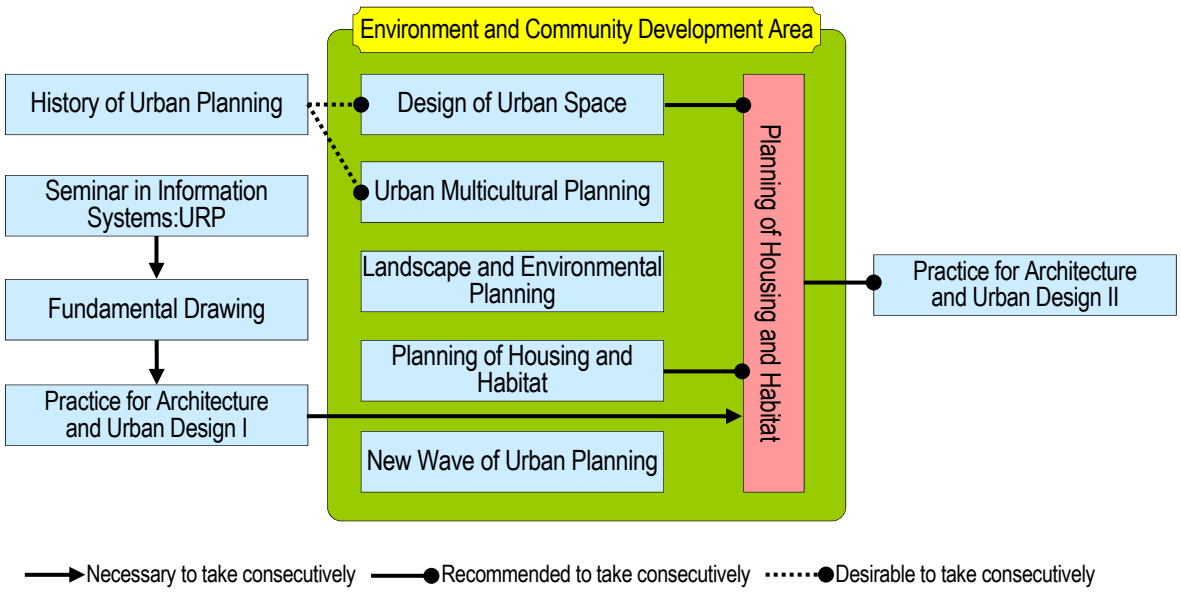

Common Courses for URP
Introduction to URP
Urban Analytics
Principles of Urban Planning
History of Urban Planning
Subjects in
- Environment and Community Development Area
- Urban Structure/Social Infrastructure Area
- Regional Science Area
Empirical Studies on URP
History of Urban Planning Thought
Seminar in Information Systems:URP
Seminar in URP
Internship on URP
Fundamental Drawing
Practice for Architecture and Urban Design I
Seminar in Living Environment Planning
Practice for Architecture and Urban Design II
Necessary to take consecutively
Recommended to take consecutively
Desirable to take consecutively

Environment and Community Development Area

The Environment and Community Development area consists of: 5 courses based on lectures to learn practical theories, and study example cases of environmental maintenance and town development, involving cities, houses, and green areas as well as [Seminar in Living Environment Planning] to acquire the thinking, design, and presentation skills needed for specific planning; a total of 6 courses.

Course name	Course description	Target year
Seminar in Living Environment Planning	This seminar aims to improve students' ability to design urban and architectural spaces. Students, who have completed design-related courses ([Fundamental Drawing] and [Practice for Architecture and Urban Design I]) during or before the second year, will learn methods and techniques to design collective houses, applying the basic methods of design drafting that they have learned so far.	3 – 4
Planning of Housing and Habitat	This course will explain the history of housing, impact of post-war social and lifestyle changes on houses and living environments in urban and rural areas, and current challenges of housing in Japan.	2 – 4
Design of Urban Space	This course will outline recent trends in architectural and urban design, while introducing various vocabularies to create attractive spaces. Subsequently, it will explain their functional structures and building-related regulations such as the Building Standards Act (for individual buildings). Students will also acquire basic competencies for space design through design tasks.	2 – 4
Landscape and Environmental Planning	This course will systematically discuss ideal urban/regional planning based on the conservation of the natural environment, historical resources, and open spaces, giving concrete examples to illustrate historical development, contemporary issues, and future directions.	2 – 4
New Wave of Urban Planning	This course will critically review the planning theories of the 20th century as the theoretical background of modern town development, and mainly discuss the planning process, participation, planning administration and methods, and planning regulations. Furthermore, to help students understand modern town development in actual settings, it will explain various topics such as the revitalization of central urban and urban-rural areas and sustainable environment-friendly town development.	2 – 4 (recommended in 2nd-year)
Urban Multicultural Planning＊	In this course, students will observe urban spatial structure in Asian countries based on history and using videos. They will also discuss necessary ideas and methods for multicultural urban and regional planning, with the current situation, where Asian spaces are being disseminated in non-Asian cities, taken into consideration.	2 – 4

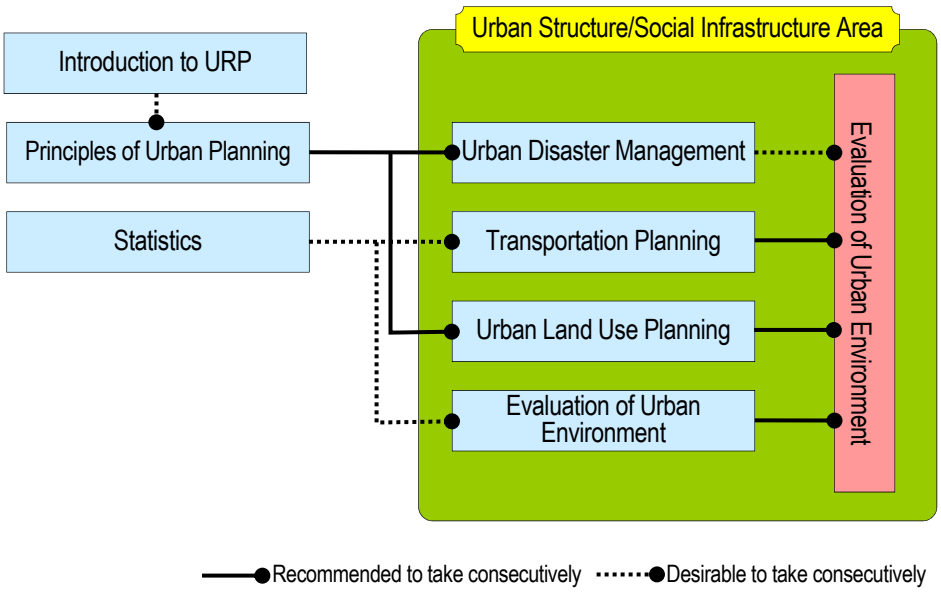
*: Provided by collaborative staff (from the College of International Studies)


Environment and Community Development Area
History of Urban Planning
Seminar in Information Systems:URP
Fundamental Drawing
Practice for Architecture and Urban Design I
Design of Urban Space
Urban Multicultural Planning
Landscape and Environmental Planning
Planning of Housing and Habitat
New Wave of Urban Planning
Planning of Housing and Habitat
Practice for Architecture and Urban Design II
Necessary to take consecutively
Recommended to take consecutively
Desirable to take consecutively

Urban Structure/Social Infrastructure Area

This area provides the following 4 courses to help students acquire basic perspectives, knowledge, and analytical techniques indispensable for considering legal systems, planning methods, and policies, involving cities and land, and [Seminar in Urban Masterplan] for them to acquire practical skills for planning:

Course name	Course description	Target year/years
Seminar in Urban Masterplan	In this course, students will learn the process of formulating master and comprehensive plans for cities, towns, and villages, specifically the southern area of Ibaraki Prefecture, including Tsuchiura City, through materials preparation and presentations using traffic forecasting and land use forecasting software and geographic information systems (GISs)	3 – 4
Urban Land Use Planning	This course will provide an overview of the forms, purposes, and functions of land use planning from the national/regional to district level, mainly in urban areas. Students will acquire basic knowledge of urban district development measures, including district planning as a method of urban and regional planning and the Building Standards Act (for groups of buildings).	3 – 4
Evaluation of Urban Environment	This course will provide an overview of urban water environment, climate, land use and ecosystem, basic knowledge of life and lifestyles, and methods for quantitatively measuring and evaluating urban environment (e.g., assessment methods). Students will deepen their understanding of the relationship between global and urban environmental problems through comprehensive discussions in the final week.	2 – 4
Urban Disaster Management	This course will first analyze the characteristics of urban disasters, and then show the mechanisms of occurrence and expansion of various types of disaster in cities and methods to prevent them, presenting some example cases. It will explain these preventive measures and those for urban disaster preparedness planning in relation to urban and regional planning.	2 – 4
Transportation Planning	In this course, students will acquire basics such as demand forecasting, network analysis, cost-benefit analysis, and traffic accident analysis for transportation planning and development. We also provide and discuss current policy issues such as mobility management, tourism planning, and public transportation planning.	2 – 4

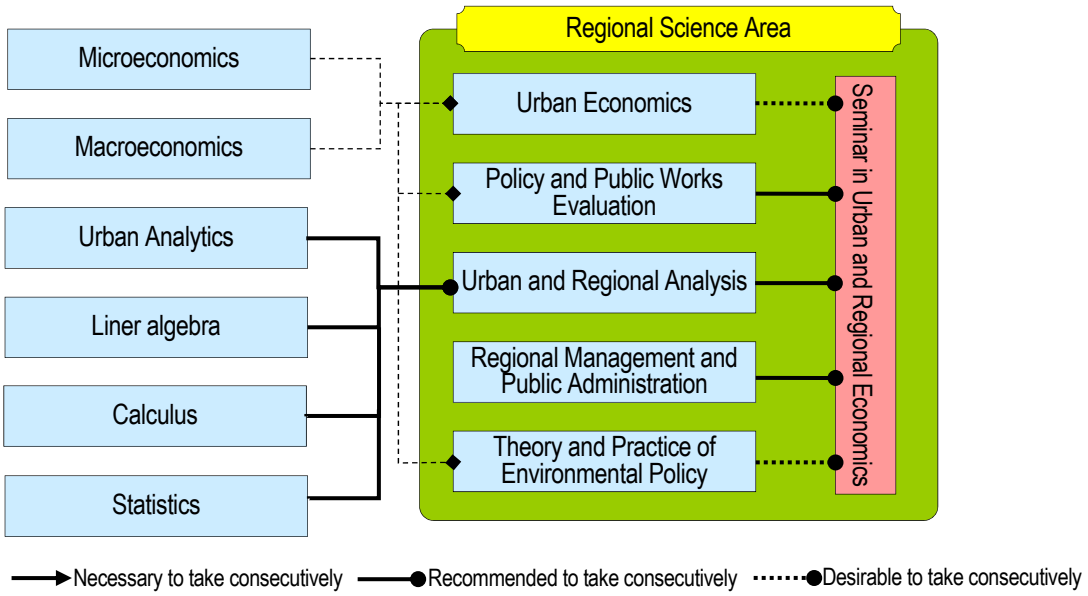

Introduction to URP
Principles of Urban Planning
Statistics
Urban Structure/Social Infrastructure Area
Urban Disaster Management
Transportation Planning
Urban Land Use Planning
Evaluation of Urban Environment
Evaluation of Urban Environment
Recommended to take consecutively
Desirable to take consecutively

Regional Science Area

In the Regional Science area, students acquire scientific analysis techniques using mathematical and economic methods for cities, regions, and environments. They learn the basics of the theories needed for policy proposals to address various problems in society. This area consists of the following 5 lecture-based courses and [Seminar in Urban and Regional Economics]:

Course name	Course description	Target year/years
Seminar in Urban and Regional Economics	In this course, students will perform empirical analysis using urban, regional, and environmental economic methods, themes, and data to acquire viewpoints and techniques for analyzing policy issues.	3 – 4
Urban Economics	In this course, students will learn the basics of analysis methods in urban economics and location theory, and acquire knowledge of policies on urban, regional, and international trading.	2 – 4
Regional Management and Public Administration	In this course, students will acquire abilities to determine, implement, and evaluate public policies, and discuss appropriate future urban/regional revitalization by studying some example cases of national land planning, housing, and urban area policies, with recent new global trends related to changes in public policies and leaders and differences from Western countries considered.	2 – 4
Policy and Public Works Evaluation	This course will explain: the current status of policy evaluation, specifically in cities, regions, and lands; and economic analysis (cost-benefit analysis), financial analysis, and finance related to projects, specifically social capital development projects.	2 – 4 (recommended in 2nd-year)
Urban and Regional Analysis	Abstracted from a certain point of view, cities may be regarded as patterns of dots, lines, and surfaces. This course will discuss the mathematical basis needed for analyzing these patterns in terms of urban functions.	2 – 4
Theory and Practice of Environmental Policy *	In this course, students will observe policy measures for environmental conservation and methods for their evaluation mainly from economic perspectives. They will also examine the relationships between various values/disciplines and policy implications to develop diverse perspectives on “environmental problems” and “environmental policies”. Furthermore, they will deepen their understanding of specific environmental issues, such as global warming and waste.	2 – 4

*: Provided by collaborative staff (from the College of International Studies)


Regional Science Area
Microeconomics
Macroeconomics
Urban Analytics
Liner algebra
Calculus
Statistics
Urban Economics
Policy and Public Works Evaluation
Urban and Regional Analysis
Regional Management and Public Administration
Theory and Practice of Environmental Policy
Seminar in Urban and Regional Economics
Necessary to take consecutively
Recommended to take consecutively
Desirable to take consecutively

AY2022 Graduation Thesis Schedule

for 4th-year Students

2022	April	1st (Fri)	Determining the graduation thesis-related schedule	College Operations Committee
	November	Mid	Ordering graduation thesis files	The Chair
			Arranging to secure classrooms for graduation thesis presentations	Instructor in charge of the fourth-year class
	December	Mid	Preparing and posting “Graduation Thesis Submission and Presentation” (for students/faculty)	Department of School Affairs
			Distributing graduation thesis files/graduation thesis reception tables (original/copy)	Department of School Affairs
2023	January	Mid	Requesting the submission of a draft graduation thesis presentation schedule	Chair→Instructor in charge of the fourth-year class
		Late	Adjusting the draft and creating the final graduation thesis presentation schedule	Instructor in charge of the fourth-year class/Chair
			Posting “Graduation Thesis Presentation Schedule”	Department of School Affairs
		19th (Thu)	Graduation thesis submission	
			Classifying the received graduation theses based on faculty, and sending “Graduation Thesis B Evaluation” using an electronic file	Department of School Affairs
			Notifying the receipt of graduation theses	Chair→Each instructor
		24th (Tue)	Graduation thesis presentations	
		25th (Wed)	Determining the graduation thesis-related schedule	All faculty
	February	1nd (Wed)	Ordering graduation thesis files	Each instructor→Chair
			Arranging to secure classrooms for graduation thesis presentations	
		Mid	Preparing and posting “Graduation Thesis Submission and Presentation” (for students/faculty)	Department of School Affairs

Note: A more detailed schedule will be posted on the CCPS bulletin board as soon as it is fixed.

Approved by the Curriculum Committee on March 22, 2022.

Process of Determining Graduation Thesis Topics and Supervisors in AY2023

for 3rd-year Students

2022	April	1st (Fri)	Determining the graduation thesis supervisor-related schedule	College Operations Committee
	October	Mid	Preparing and reporting “Graduation Thesis Supervision Schedule” Distributing “Graduation Thesis Supervision Schedule” to faculty and posting it Preparing and distributing “Graduation Thesis Application Form” Period for interviews and coordination with faculty	Chair/Curriculum Committee members/Faculty Chair/Department of School Affairs Department of School Affairs
	December	9th (Fri)	Deadline for the submission of “Graduation Thesis Application Form” (Each supervisor’s stamp of approval is required = determination of graduation thesis supervisors)	Department of School Affairs
2023	March	Early	Creating a list of graduation thesis supervisors in each major / holding a decision-making meeting	Chair/Curriculum Committee
	April	Early	Determining and notifying the laboratory assigned to each student for graduation thesis	College Operations Committee

Note: A more detailed schedule will be posted on the CCPS bulletin board as soon as it is fixed.

Approved by the Curriculum Committee on March 22, 2022.

Major Assignment Schedule in AY2022

for 2nd-year students

2022	April	1st (Fri)	Determining the major assignment-related schedule	College Operations Committee
			Posting a notification on major assignment guidance	Department of School Affairs
			Holding an orientation to provide major assignment guidance Creating, posting, and distributing “Major Assignment Application Form”	Curriculum Committee Department of School Affairs
	July	29th (Fri)	Deadline for the submission of “Major Assignment Application Form”	Department of School Affairs
			Tabulating the submitted application forms and creating a summary sheet	Department of School Affairs
			Reporting the status of application for major assignment	College Operations Committee
			Confirming the status of fulfilling the major assignment requirements (such as the number of credits earned) (Entering the contents of grading reports in students’ report cards)	Department of School Affairs
	September	Early	Determining major assignment (preparing documents to specify the courses/credits each unsuccessful applicant lacked)	Curriculum Committee
			Notifying (posting) major assignment results after the Curriculum Committee meeting	Department of School Affairs
			Determining and notifying (posting) the major assigned to each student	College Operations Committee/Department of School Affairs

Note: A more detailed schedule will be posted on the CCPS bulletin board as soon as it is fixed.

Approved by the Curriculum Committee on March 22, 2022.

Supplement to the CPPS Curriculum

Created on March 15, 2009
Revised on March 15, 2011
Revised on March 31, 2013
Revised on October 1, 2014
Revised on April 1, 2015
Revised on April 1, 2019
Revised on April 1, 2020

CPPS Curriculum Committee

1) Course requirements for graduation thesis

[students enrolled in and after AY2019]

The requirements to start the graduation thesis are as follows (See the “Handbook for Undergraduate Students” of the year when you were enrolled):

- The total number of credits earned must be 84 or more, including 14 or more from compulsory and elective courses of foundations.

[students enrolled before AY2018]

The course requirements to start the graduation thesis are as follows (See the “Handbook for Undergraduate Students” of the year when you were enrolled):

- The total number of credits earned must be 84 or more, including 20 or more from compulsory courses of major subjects and those from compulsory and elective courses of foundations.
- You should also have taken TOEFL or TOEIC (also substitutable by ITP) while belonging to the university.

If you meet these requirements in an intermediate year due to repeating a year or other causes, and wish to start the graduation thesis from the next semester, please contact the instructor in charge of each major for fourth-year students. In that case, follow the instructor’s instructions on laboratory assignment.

2) Acquisition of qualifications

Students who wish to acquire qualifications, such as those to take teacher or architect licensure examinations (Major in Urban and Regional Planning), need to start planning their course schedules early, in order to complete the prescribed courses. Please carefully consider your course plan from an early stage.

3) Early graduation

If the conditions are met, you can apply for early graduation at the end of the second year. If you wish to make such an application, please contact Curriculum Committee members or the instructor in charge of your class for consultation as soon as possible.

4) Courses at the graduate school

There is a system for students with especially excellent academic achievements to take some courses at the graduate school while belonging to this college, depending on their document screening results, and acquire credits from these courses after advancing to the graduate school. The active use of this system is particularly recommended to students who wish to advance to the graduate school.

5) Application for minor subjects

Students can also have another major at the College of Policy and Planning Sciences accredited as their minor. If you wish minor accreditation, please be sure to make an application for it to the Department of School Affairs by the deadline specified separately during the semester when you take [Graduation Thesis in Policy and Planning Sciences A]. Application for minor accreditation requires the acquisition of a sufficient number of credits for a major to be accredited.

6) Retaking courses

In principle, retaking courses, from which credits were earned (re-taking the same courses), is not permitted.

Q&A about courses/advancement

Q. Is there a limit to the number of credits that can be registered in one year?
A. The total number of courses students can register in one year is up to 45 credits. However, courses that meet any of the following conditions are not counted as subject to this upper limit:
   (a) Courses on the teaching profession or museums
   (b) Courses intensively provided during the summer, winter, or spring vacation
   (c) Among “Other qualifications” in the Course Catalog, courses listed in Table 2: “Available Courses Corresponding to the Designated Courses of the Major in Urban and Regional Planning at the College of Policy and Planning Sciences, School of Science and Engineering” for the qualification to take 1st-Class, 2nd-Class and *MOKUZO*” *KENCHIKUSHI* license examinations, and provided at colleges/schools other than the College of Policy and Planning Sciences.

Q. Is there any possibility for the maximum number of credits that can be registered in one year to increase?
A. Only students meeting the following requirements and transfer students will become able to register up to 55 credits in one year beyond the upper limit (45 credits per year) by making the prescribed application:
   ・ Having acquired 35 credits or more by completing graduation requirement courses in the previous year, and;
   ・ Having achieved “A” or a higher grade in 80% or more of these courses
   However, courses corresponding to (a) or (b) in the previous Q&A section are not counted as subject to this measure (allowing to register up to 55 credits in one year).

Q. How many courses should I take in the first year?
A. The standard number of credits to be acquired in the first year is about 40.

Q. Can first-year students take courses of major subjects targeting second to fourth-year students?
A. Yes, they can. However, in terms of learning effects, some courses are not available for first-year students. Even if you take such courses, please be careful not to make your learning plan too hard.

Q. Can I add or delete courses to be registered at any time?
A. Students cannot add or delete courses to be registered at any time, but must complete the course registration procedure on TWINS by the course application deadline. Please read the instructions presented on TWINS carefully, and follow them.

Q. Can I count credits from courses in remedial mathematics ([Analysis (Calculus) Basics] and [Linear Algebra Basics] as common courses at the School of Science and Engineering) to fulfill my graduate requirements?
A. No, you cannot.

Q. Can I decide on my major freely?
A. Yes, you can.

Q. Can I change my major after major assignment? Are there any conditions for this?
A. Yes, you can, and there are no conditions for this. However, you will need to submit a notification of change of major.

[Students enrolled in or after AY2019]

Q. Is there any timing for major assignment other than the beginning of the fall semester of the second year?

A. Students who do not belong to any major yet are assigned to a major only at the beginning of the fall semester of the second year.

[Students enrolled in or after AY2019]

Q. When should I decide on my major?

A. It is usually July (scheduled) of the second year when students must submit a request form for major assignment. Therefore, you should decide on your major by then. (Having submitted a request form for major assignment in July of the second year, you will be notified of your class around September after confirmation of whether you meet the requirements of your major.)

[Students enrolled in or before AY2018]

Q. Are there any courses at other colleges/schools accredited/not accredited as free choice courses?

A. There is no distinction between courses at other colleges/schools accredited and not accredited as free choice courses. All courses are accredited. However, you should note the restrictions on taking these courses specified in the remarks column of the List of Available Courses, if any.

[Students enrolled in or before AY2018]

Q. The course numbers of special lectures on policy and planning sciences are FH63***. Does this mean these courses will be accredited both as elective courses of foundations (FH62/63) and as free choice courses (FH605, 606, 607, 62, 63)? (In the column beneath “Elective Courses”, only these courses do not have a course name.)

A. Special lectures on policy and planning sciences will be accredited only as free choice co urses.

[Students enrolled in or before AY2018]

Q. If I take specialized introductory courses newly available from AY2019 (FH61***), will credits from them be counted to fulfill my graduation requirements?

A. Even if students enrolled before AY2018 take specialized introductory courses available at the College of Policy and Planning Sciences, credits from these courses will not be counted fulfill their graduation requirements.

Curriculum for the Qualification to Take *KENCHIKUSHI* License Examinations in the Major in URP at the CPPS

By enacting the Revised Architect Act in 2018, the qualification to take *KENCHIKUSHI* (Japan's qualified and registered architect) License Examinations has been changed to those who have graduated after completing the courses related to architecture designated by the Minister of Land, Infrastructure, Transport, and Tourism (MLIT). Details are shown in Table 1.

Students in the Major in Urban and Regional Planning of the College of Policy and Planning Sciences can achieve the qualification to take 1ST/2ND-Class and *MOKUZO*(wooden) *KENCHIKUSHI* License Examinations after graduation by acquiring the prescribed number of credits or more in courses corresponding to those listed in Table 2.

However, in order to obtain an *KENCHIKUSHI* license, it is necessary for applicants to have the experience specified by an Ordinance of the MLIT (having worked in architecture for the prescribed period or longer), in addition to passing these examinations. Courses available at other colleges/schools can also be counted to fulfill graduation requirements as related free choice courses. It is advisable for students who wish to achieve the qualification, to take courses according to the curriculum shown in Table 2.

Please pay attention to notifications, as the courses available at the university listed in Table 2 may be revised every year.

Table 1 Requirements for taking Architect Licensure Examinations and for license registration

Designated subjects	Exam for 1ST-CLASS *KENCHIKUSHI*			Exam for 2ND-CLASS/*MOKUZO KENCHIKUSHI*		
1) Architectural Design Drawing	7 credits			3 credits		
2) Architectural Planning	7 credits			2 credits		
3) Building Environmental Engineering	2 credits					
4) MEP Systems	2 credits					
5) Structural Dynamics	4 credits			3 credits		
6) General Structure of Building	3 credits					
7) Building Materials	2 credits					
8) Building Construction	2 credits			1 credit		
9) Building-related Laws and Regulations	1 credit			1 credit		
Subtotal from 1) to 9) (a)	30 credits			10 credits		
10) Compound or Related Subjects (b)	suitable			suitable		
(a)＋(b)	60 credits	50 credits	40 credits	40 credits	30 credits	20 credits
Essential experience years in architectonic business to take the exam	0 year after graduation			0 year after graduation		
Essential experience years in architectonic business for license registration	2 years after graduation	3 years after graduation	4 years after graduation	0 year after graduation	1 years after graduation	2 years after graduation

Recommended to aim at 60 credits or more.

Necessary to aim at 40 credits at the least.

Table 2 Major in URP's Courses Correspondent to the Designated Subjects

Categories of the Designated Subjects		Courses at University of Tsukuba	Credits	Offered by
1ST-CLASS	2ND-CLASS/ *MOKUZO*			
Architectural Design Drawing (7 credits or more)	Architectural Design Drawing (3 credits or more)	Seminar in Living Environment Planning	4	College of Policy and Planning Sciences
		Fundamental Drawing	1	College of Policy and Planning Sciences
		Practice for Architecture and Urban Design I	2	College of Policy and Planning Sciences
		Practice for Architecture and Urban Design II	2	College of Policy and Planning Sciences
Architectural Planning (7 credits or more)	Architectural planning, Building Environmental Engineering or MEP System (2 credits or more)	Design of Urban Space	2	College of Policy and Planning Sciences
		Planning of Housing and Habitat	2	College of Policy and Planning Sciences
		History of Urban Planning	2	College of Policy and Planning Sciences
		Architecture Planning	2	School of Art and Design
		Architectural Design Theory	2	School of Art and Design
		Architectural History	1	School of Art and Design
		Global History of Architecture	2	School of Art and Design
		Site Planning	2	School of Art and Design
Building Environmental Engineering (2 credits or more)		Architectural Environmental Engineering	2	College of Engineering Systems
		Environmental Planning in Architecture	2	School of Art and Design
MEP Systems (2 credits or more)		Architectural Equipments	2	College of Engineering Systems
		Workshops on Environmental Control System in Architecture	2	School of Art and Design
Structural Dynamics (4 credits or more)	Structural Dynamics, General Structure of Building or Building Materials (3 credits or more)	Introduction to Materials Engineering	1	College of Engineering Systems
		Materials Engineering I	1	College of Engineering Systems
		Advanced Materials Engineering II	2	College of Engineering Systems
		Structural Mechanics I	2	College of Engineering Systems
		Structural Mechanics II	1	College of Engineering Systems
		Theory of Vibration	3	College of Engineering Systems
		Soil Mechanics	2	College of Engineering Systems
		Geotechnical Engineering	1	College of Engineering Systems
		Structural Mechanics in Architecture	2	School of Art and Design
		Structural Planning in Architecture	2	School of Art and Design
General Structure of Building (3 credits or more)		Reinforced Concrete Structure	1	College of Engineering Systems
		Disaster Reduction Engineering	2	College of Engineering Systems
		Steel Structure	1	College of Engineering Systems
		Building Construction	2	School of Art and Design
		Seminars: Building Constructions	1	School of Art and Design
Building Materials (2 credits or more)		Concrete Engineering	2	College of Engineering Systems
		Introduction to Material Science for Engineers	1	College of Engineering Systems
		Advanced Material Science for Engineers	1	College of Engineering Systems
		Mechanics of Composite Materials	2	College of Engineering Systems
		Building Materials	2	School of Art and Design

Categories of the Designated Subjects		Courses at University of Tsukuba	Credits	Offered by
1ST-CLASS	2ND-CLASS/ *MOKUZO*			
Building Construction (2 credits or more)	Building Construction (1 credit or more)	Independent Study: Building Economy	1	College of Policy and Planning Sciences
		Building Construction	1	College of Policy and Planning Sciences
Building-related Laws and Regulations (1 credit or more)	Building-related Laws and Regulations (1 credit or more)	Independent Study: Related laws and regulations on building	1	College of Policy and Planning Sciences
Others (suitable)	Others (suitable)	New Wave of Urban Planning	2	College of Policy and Planning Sciences
		Seminar in Information Systems: Urban and Regional Planning	3	College of Policy and Planning Sciences
		Principles of Urban Planning	2	College of Policy and Planning Sciences
		Landscape and Environmental Planning	2	College of Policy and Planning Sciences
		Urban Disaster Management	2	College of Policy and Planning Sciences
		Urban Land Use Planning	2	College of Policy and Planning Sciences
		Introduction to Urban and Regional Planning	1	College of Policy and Planning Sciences
		Ethics for Engineers	1	College of Engineering Systems
		Landscape Design	2	School of Art and Design
		Introduction to Architectural Design	1	School of Art and Design
		Introduction to Environmental Design	1	School of Art and Design
		Introduction to World Heritage Studies	1	School of Art and Design
		General Lectures on Design History A	1	School of Art and Design
		General Lectures on Design History B	1	School of Art and Design
		Design Studies	1	School of Art and Design
		Urban Design	2	School of Art and Design
		Architectural design and society	1	School of Art and Design