By-Laws for the Completion, Appended Table (Related to Article 4, and 5)

Master's Course

Subject Type		Subjects	Eligible Class Year	No. of Credits		No. of Required Credits	
				Compulsory	Compulsory Elective		
Common Graduate Subjects	Sustainable Development Subjects	World Peace and HIROSHIMA	1・2		1	1 or more credits	2 or more credits
		Japanese Experience of Social Development - Economy, Infrastructure, and Peace	1・2		1		
		Japanese Experience of Human Development - Culture, Education, and Health	1・2		1		
		Academic approach to SDGs - A	1・2		1		
		Academic approach to SDGs - B	1・2		1		
		Understanding diversity and Inclusion	1・2		1		
		Practical Approach to SDGs	1・2		1		
		Considering "Peace" through Atomic Bomb Literature and Arts -Based on Experience of Atomic Bomb Survivors	1・2		1		
		Climate Change Adaptation and Mitigation	1・2		1		
		Innovation and Practice for Smart Society	1・2		1		
	Career Development and Data Literacy Subjects	Data Literacy	1・2		1	1 or more credits	
		Data Literacy in Medicine	1・2		1		
		Stress Management	1・2		2		
		Introduction to MOT	1・2		1		
		Information security	1・2		1		
		Entrepreneurship	1・2		1		
		Introduction to Informatics I	1・2		1		
		Introduction to Informatics II	1・2		1		
		Introduction to Basic Science Researcher	1・2		1		
		Advanced Career Management	1・2		2		
		Career Management Course for International Students A	1・2		1		
		Career Management Course for International Students B	1・2		1		
		Career Developments in Semiconductor Industry	1・2		1		
		Long-term internship	1・2		2		
Basic Module		Evidence-Based Decision Making	1・2		2	4 or more credits	
		Research Methods	1・2		2		
		Data Visualization A	1・2		1		
		Data Visualization B	1・2		1		
		Data Analytics for Sustainable Development	1・2		2		
		Geographic Information System Technology	1・2		2		
		Statistical Machine Learning	1・2		2		
		Artificial and Natural Intelligence	1・2		2		
		Academic Writing I	1・2		1		
Specialization Module		Advanced Natural Language Processing	1・2		2	14 or more credits	
		Advanced Learning Systems	1・2		2		
		Advanced Human Systems Augmentation	1・2		2		
		Advanced Data-driven Systems Design	1・2		2		
		Advanced Smart Sensing	1・2		2		
		Advanced Robotics	1・2		2		
		Advanced Computational Neuroscience	1・2		2		
		Transportation Engineering	1・2		2		
		Transportation Planning	1・2		2		
		Fundamentals of Survey Methodology	1・2		2		
		Infrastructure and Regional Planning	1・2		2		
		Smart Urban Development	1・2		2		
		Environmental Health Science	1・2		2		
		Environmental Epidemiology	1・2		2		
		Advanced Energy Plant	1・2		2		
		Advanced Thermal Engineering	1・2		2		
		Energy Science and Technology	1・2		2		
		Biomass Energy Technology	1・2		2		
		Advanced Energy Conversion Systems	1・2		2		
		Sustainable Architecture A	1・2		2		
		Assisted Reproductive Technology for Animal Production	1・2		1		
		Molecular Genetics for Animal Production	1・2		1		
		Smart Livestock Farming	1・2		1		
		Smart Crop Production	1・2		1		
		Sustainable Marine Environment	1・2		1		
		Sustainable Production of Fisheries Resources	1・2		1		
		Microbiology for Food Safety	1・2		1		
		Food Science and Brain Health	1・2		1		
		Exercises in Smart Agriculture I	1・2		1		
		Exercises in Smart Agriculture II	1・2		1		
		Botany Resources for the Future	1・2		2		

Subject Type	Subjects	Eligible Class Year	No. of Credits		No. of Required Credits
			Compulsory	Compulsory Elective	
Specialization Module	Management and Conservation of Ecosystems	1・2		2	14 or more credits
	Advanced Environmental Microbiology and Infectious Diseases	1・2		2	
	Microbial Genetics, Genomics, and Bioinformatics	1・2		2	
	Epidemiology and Disease Prevention	1・2		2	
	Lecture on Oral Health Sciences	1・2		2	
	Global Health Challenges and Solutions 1	1・2		2	
	Global Rehabilitation	1・2		2	
	Seminar on Health Policy & Global Health	1・2		1	
	Basic Biostatistics and Basic Clinical Statistics	1・2		1	
	Exercise and Seminar on Epidemiological Research and It's Analysis	1・2		2	
	Basic Epidemiology and Practice	1・2		2	
	Applied Econometrics I	1・2		2	
	Applied Econometrics II	1・2		2	
	Development Microeconomics I	1・2		2	
	Development Microeconomics II	1・2		2	
	Development Macroeconomics I	1・2		2	
	Development Macroeconomics II	1・2		2	
	Agriculture Production Economics	1・2		2	
	Peace, Conflict, and the Environment	1・2		2	
	Urban Policy	1・2		2	
	Remote Sensing for Social Sciences	1・2		2	
	Comparative Education in Developing Countries （新規追加）	1・2		2	
	Theory and Practice in Education and Development （新規追加）	1・2		2	
	Private Sector Analysis & Research Methods in Education （新規追加）	1・2		2	
	Education, Rights and Social Change （新規追加）	1・2		2	
Practical Module	Internship	1・2		2	2 or more credits
	Fieldwork	1・2		2	
	Young Professionals Preparing for Careers in International Organizations A	1・2		2	
	Young Professionals Preparing for Careers in International Organizations B	1・2		2	
	Developing Designing Ability	1・2		2	
	Overseas Academic Activities for Smart Society （新規追加）	1・2		2	
	Science Seminar for Smart Society A（新規追加）	1・2		2	
Master thesis Module	Seminar on Master Thesis	1～2	4		4 credits
Subjects Specialized for Other Graduate School					4 or more credits

【Registration Method and Completion Requirements】

To complete the master's course, students must earn a total of 30 or more credits in accordance with the requirements listed below, receive necessary research guidance, and pass the master's thesis review and the final examination.

Minimum credits required for competion: 30 credits

(1) Common Graduate Subjects: 2 or more credits, including:
- Sustainable Development Subject: 1 or more credits
- Career Development and Data Literacy Subject: 1 or more credits

(2) Basic Module Subjects : 4 or more credits
- Recommended to obtain 2 or more credits from "Geographic Information System Technology", "Statistical Machine Learning" and "Artificial and Natural Intelligence."
- Recommended to obtain 2 or more credits from "Evidence-Based Decision Making", "Research Methods", "Data Visualization A", "Data Visualization B", "Data Analytics for Sustainable Development" and "Academic Writing I."

(3) Specialization Module: 14 or more credits

(4) Practical Module: 2 or more credits

(5) Master thesis Module: 4 credits

(6) Subjects Specialized for Other Graduate Schools: 4 or more credits

Doctoral Course

Subject Type		Subjects	Eligible Class Year	No. of Credits		No. of Required Credits	
				Compulsory	Compulsory Elective		
Common Graduate Subjects	Sustainable Development Subjects	SDGs Ideas Mining Seminar for Specialists	1・2・3		1	1 or more credits	2 or more credits
		Seeking Universal Peace	1・2・3		1		
		Atomic Bomb Literature, War Literature and Peace -Based on Experience of Atomic Bomb Survivors and Concentration Camps' Prisoners	1・2・3		1		
	Career Development and Data Literacy Subjects	Data Science	1・2・3		2	1 or more credits	
		Pattern Recognition and Machine Learning	1・2・3		2		
		Pathway to becoming a Data Scientist	1・2・3		1		
		Utilization of Data Literacy in Medicine	1・2・3		1		
		Skills and Arts of Leadership	1・2・3		1		
		Career Management Seminar	1・2・3		1		
		Innovation Practice	1・2・3		2		
		Long-term internship	1・2・3		2		
		Introduction to business creation	1・2・3		1		
Practical Knowledge Development Module		Management and Entrepreneurship	1・2・3		1	1 or more credits	
		Technology Strategy and R&D Management	1・2・3		1		
		Academic Writing II	1・2・3		1		
		Advanced Internship	1・2・3		2		
		Advanced Fieldwork	1・2・3		2		
		Academic Research Overseas for Smart Socity	1・2・3		2		
		Science Seminar for Smart Society B	1・2・3		2		
Dissertation Module		Seminar on Doctoral Dissertation	1～3	12		12 credits	

【Registration Method and Completion Requirements】

To complete the doctoral course, students must earn a total of 17 or more credits in accrdance with the requirements listed below, receive necessary research guidance, and pass the doctoral dissertation review and the final examination.

Minimum credits required for competion: 17 credits

(1) Common Graduate Subjects : 2 or more credits, including:
- Sustainable Development Subjects: 1 or more credits
- Career Development and Data Literacy Subjects: 1 or more credits

(2) Practical Knowledge Development Module: 1 or more credits

(3) Practical Knowledge Application Module: 2 or more credits

(4) Dissertation Module: 12 credits