

Class Subjects and Course Registration

Department of Environmental Dynamics and Management (Master's Program)

Segment	Class Subject	Credit	Grade	Registration and Requirement			
Compulsory	Research for Academic Degree Dissertation *	8	1 • 2	○Registration			
	Science Seminar (A) (Note ¹) *	2	1 • 2				
Basic subjects	① Science and Engineering Ethics	1	1 or 2	1 Compulsory 10 Credits * No need to register by the students.			
	② General Biosphere Science (1)	2	1 or 2				
Basic subjects	③ General Biosphere Science (2)	2	1 or 2	2 Compulsory but optional 12 Credits (Should be selected after discussion with the Academic Supervisor)			
	④ Graduate general education subjects (Basic) (Note ²)	1 or 2	1 or 2				
Select 1 subject from ①-④ above							
Compulsory but optional	Basic subjects	Main Issue of Biogeochemical Cycling in Terrestrial Ecosystems under Warming	1	1 or 2	● 1 subject from the basic subjects 1 or 2 credits ※ Excess credits over 1 obtained from the basic subjects can be counted as those of the optional subjects.		
		Atmosphere-Hydrosphere Dynamics II	1	1 or 2			
		Environmental Analytical Chemistry of Atmosphere and Hydrosphere	1	1 or 2			
		Advance in Aquatic Environmental Ecology	1	1 or 2			
	Core subjects	Numerical Model Analysis of Marine Ecosystem (Fundamental Course)	1	1 or 2	From the Core Subjects ● Exercise designated by the Academic Supervisor 2 Credits ● Practice designated by the Academic Supervisor (Experiment/Practice) 1 Credit ● Other Core subjects than those above 8 Credits ※ Excess credits over eight obtained from the core subjects can be counted as those of the optional subjects.		
		Plant Nutritional Ecology	1	1 or 2			
		Introduction to Molecular Physiology of Plant Nutrition	1	1 or 2			
		Management of Coastal Ocean Environment in Seto Inland Sea	1	1 or 2			
		Management of Coastal Marine Environment	1	1 or 2			
		Agricultural Meteorology II	1	1 or 2			
		Applied Biocontrol	1	1 or 2			
		Exercises in Modeling and Management of Environmental Dynamics(A)	2	1 or 2			
		Practice in Modeling and Management of Environmental Dynamics	1	1 or 2			
		Marine Ecosystem Dynamics	1	1 or 2			
		Food Chain Dynamics	1	1 or 2			
		Marine Microbial Dynamics	1	1 or 2			
		Biology of Symbioses between Marine Animals and Microorganisms II	1	1 or 2			
		Deep Sea Ecology II	1	1 or 2			
		Deep-Sea Biology II	1	1 or 2			
		Conservation and Management of Seagrass, Algae and Tidal-flat Ecosystems-II	1	1 or 2			
		Evaluation of Plant Environment	1	1 or 2			
		Assessment of Nutrient Cycling in Soil Ecosystem	1	1 or 2			
		Evaluation of Soil Environment	1	1 or 2			
		Assessment of Soil Microbial Environments	1	1 or 2			
		Exercises in Assessment of Environmental Dynamics (A)	2	1 or 2			
		Practice in Assessment of Environmental Dynamics	1	1 or 2			
						3 Optional 8 Credits or more Should be selected from list of class subjects in this Graduate School. In addition, up to five credits obtained from class subjects provided by other graduate school can be incorporated.	
						○Requirement for completion	
				1 Specialized subjects Compulsory 10 Credits Compulsory but optional 12 Credits Optional 8 Credits or more Total 30 Credits or more			
				2 Research Guidance			
				3 Master's Thesis			

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Optional	Introduction to Biogeochemical Cycling in Terrestrial Ecosystems under Warming	1	1 or 2	
	Exercises in Environmental Education	1	1 or 2	
	Atmosphere-Hydrosphere Dynamics I	1	1 or 2	
	Practicum in Environmental Analytical Chemistry of Atmosphere and Hydrosphere	1	1 or 2	
	Introduction to Aquatic Environmental Ecology	1	1 or 2	
	Numerical Model Analysis of Marine Ecosystem (Applied Course)	1	1 or 2	
	Applied Techniques in Plant Nutritional Physiology and Ecology	1	1 or 2	
	Exercises in Molecular Physiology of Plant Nutrition	1	1 or 2	
	Introduction for Management of Coastal Ocean Environment in Seto Inland Sea	1	1 or 2	
	Management of Coastal Marine Environment (Introduction)	1	1 or 2	
	Agricultural Meteorology I	1	1 or 2	
	Introductory Biocontrol	1	1 or 2	
	Introduction to marine ecosystem dynamics	1	1 or 2	
	Exercises in Food Chain Dynamics	1	1 or 2	
	Marine Microbial Dynamics Practice	1	1 or 2	
	Biology of symbioses between marine animals and microorganisms I	1	1 or 2	
	Deep Sea Ecology I	1	1 or 2	
	Deep-Sea Biology I	1	1 or 2	
	Conservation and Management of Seagrass, Algae and Tidal-flat Ecosystems I	1	1 or 2	
	Evaluation of Plant Environment: Introduction	1	1 or 2	
Introduction to Assessment of Nutrient Cycling in Soil Ecosystem	1	1 or 2		
Practical Exposition for Evaluation of Soil Environment	1	1 or 2		
Exercises in Assessment of Microbial Environments	1	1 or 2		

Note¹ See details in "Notes on Course Registration (1)".

Note² Select 1 subject in the lists of the "Graduate general education subjects (Basic)".