

4.5. Course List of Environmental Engineering for Symbiosis Major

4.5.1. Master's Program (For students entering in 2019 and after)

Code	Course Title	Credits	Year	Semester	Class instructors	Remark
○ Elective Courses (14 credits or more)						
<Global Environmental Chemistry Field>						
ENES500	Geochemistry	2	1·2	Spring	Khatri Pradeep	
ENES501	Biogeochemistry	2	1·2	Fall	YAMAMOTO Shuichi	
ENES502	Environmental Soil Science	2	1·2	Spring	SATO Shinjiro	*ET/DD
<Biosphere Science Field>						
ENES503	Methods for Ecological Study	2	1·2	Spring	FURUYA Ken	*ET
ENES504	Microbial Ecology	2	1·2	Spring	KUROSAWA Norio	*ET/DD
ENES505	Restoration Ecology	2	1·2	Fall	TODA Tatsuki	*ET/DD
ENES506	Environmental Biology	2	1·2	Summer Intensive	Victor S. KUWAHARA	*ET
<Environmental Response Engineering Field>						
ENES507	Physical Chemistry	2	1·2	Spring	MATSUYAMA Tatsushi	DD
ENES522	Organic Chemistry of Environmental Substances	2	1·2	TBD	TBD	*ET
ENES508	Environmental Toxicology	2	1·2	TBD	TBD	
ENES509	Physiologically Active Substances	2	1·2	Fall	KUROSAWA Norio WATANABE Mitsugu	DD
<Sustainable Environmental Engineering Field>						
ENES510	Environmental Process Engineering	2	1·2	Fall	IDA Junichi	*ET/DD
ENES511	Green and Sustainable Chemistry	2	1·2	Spring	NAKASAKI Kiyohiko	*ET(O)/DD
ENES512	Engineering of Resource and Energy	2	1·2	Fall	MATSUYAMA Tatsushi	*ET
ENES513	Environmental Materials Science	2	1·2	Spring	IDA Junichi	DD
<Common Courses>						
ENES521	Introduction to Technical Presentations	2	1·2	TBD	TBD	
ENES514	Society and Environmental Technology	2	1·2	Spring	YAMAMOTO Shuichi	DD
ENES515	Engineering for Developing Countries	2	1·2	Fall	NAKASAKI Kiyohiko TAKAGI Isao	DD
ENES523	Sustainable Development Technology	2	1·2	Fall	SATO Shinjiro TODA Tatsuki IDA Junichi IMAMURA Hiroki	*ET/*1
ENES516	Current Topics in Ecological Study	2	1·2	Summer Intensive	SATO Shinjiro	
ENES550	Special Lectures: Intellectual Property	2	1·2	Spring	UNEMI Tatsuo TORII Naoya	
ENES517	Internship in Graduate Course	2	1·2	Sp/Fall	MATSUYAMA Tatsushi	
ENES518	Instrumental Analysis 1	2	1·2	Summer Intensive	MATSUYAMA Tatsushi	
ENES519	Instrumental Analysis 2	2	1·2	Winte Intensive	MATSUYAMA Tatsushi TODA Tatsuki	
*The following courses are offered by ISS Major, but can be counted as elective credits for EES major.						
INFO528	Presentation Skills 1	2	1·2	Spring	UNEMI Tatsuo Colin Rundle	
INFO529	Presentation Skills 2	2	1·2	Fall	UNEMI Tatsuo Colin Rundle	
○ Required Courses (17 credits) *16 credits are required for students entering in 2019–2021, excluding "Research Ethics"						
ENES520	Scientific English Writing	2	1·2	Fall	Victor S. KUWAHARA SATO Shinjiro	*ET/DD
ENES570	Research Ethics	1	1	Spring	KAWAI Hideki IYOTA Taketoshi	*ET/*2
ENES600	Advanced Seminar in Environmental Engineering for Symbiosis 1	2	1	Sp/Fall	Each Supervisor	
ENES601	Advanced Seminar in Environmental Engineering for Symbiosis 2	2	1	Sp/Fall	Each Supervisor	
ENES602	Advanced Seminar in Environmental Engineering for Symbiosis 3	2	2	Sp/Fall	Each Supervisor	
ENES603	Advanced Seminar in Environmental Engineering for Symbiosis 4	2	2	Sp/Fall	Each Supervisor	
ENES604	Advanced Research in Environmental Engineering for Symbiosis 1	2	1	Sp/Fall	Each Supervisor	
ENES605	Advanced Research in Environmental Engineering for Symbiosis 2	2	1	Sp/Fall	Each Supervisor	
ENES606	Advanced Research in Environmental Engineering for Symbiosis 3	2	2	Sp/Fall	Each Supervisor	
ENES607	Advanced Research in Environmental Engineering for Symbiosis 4	2	2	Sp/Fall	Each Supervisor	

*1: Sustainable Development Technology [ENES523] is a course offered for students entering in 2022–; students in 2019–2021 are not required to take this course.

*2: Research Ethics [ENES570] is a course offered for students entering in 2022; students in 2019–2021 are not required to take this course.

※The "**ET" in the Remarks indicates that the course is an English Track course; an "E" or "O" after "ET" indicates that the course is offered as an English Track course in an even or odd year in the Western calendar. Courses with "**ET" may be offered in Japanese if there are no students enrolled in the English Track.

※Courses marked with "DD" in the remarks column are designated courses that must be completed before studying in Spain.

4.5.2. Doctoral Program (For students entering in 2019 and after)

Code	Course Title	Credits	Year	Semester	Class instructors	Remark
○Required Courses (28 credits)						
ENES720	Advanced Scientific English Writing 1	2	1・2	Spring	Each Supervisor	
ENES721	Advanced Scientific English Writing 2	2	1・2	Fall	Each Supervisor	
ENES700	Advanced Seminar in Environmental Engineering for Symbiosis 5	2	1	Sp/Fall	Each Supervisor	
ENES701	Advanced Seminar in Environmental Engineering for Symbiosis 6	2	1	Sp/Fall	Each Supervisor	
ENES702	Advanced Seminar in Environmental Engineering for Symbiosis 7	2	2	Sp/Fall	Each Supervisor	
ENES703	Advanced Seminar in Environmental Engineering for Symbiosis 8	2	2	Sp/Fall	Each Supervisor	
ENES704	Advanced Seminar in Environmental Engineering for Symbiosis 9	2	3	Sp/Fall	Each Supervisor	
ENES705	Advanced Seminar in Environmental Engineering for Symbiosis 10	2	3	Sp/Fall	Each Supervisor	
ENES706	Advanced Research in Environmental Engineering for Symbiosis 5	2	1	Sp/Fall	Each Supervisor	
ENES707	Advanced Research in Environmental Engineering for Symbiosis 6	2	1	Sp/Fall	Each Supervisor	
ENES708	Advanced Research in Environmental Engineering for Symbiosis 7	2	2	Sp/Fall	Each Supervisor	
ENES709	Advanced Research in Environmental Engineering for Symbiosis 8	2	2	Sp/Fall	Each Supervisor	
ENES710	Advanced Research in Environmental Engineering for Symbiosis 9	2	3	Sp/Fall	Each Supervisor	
ENES711	Advanced Research in Environmental Engineering for Symbiosis 10	2	3	Sp/Fall	Each Supervisor	

4.6. Instructors teaching research guidance courses

Field	Name	Remark
Global Environmental Chemistry	Professor SATO Shinjiro	
	Associate professor Khatori Pradeep	Master's Program Only
Biosphere Science	Professor FURUYA Ken	
	Professor TODA Tatsuki	
	Professor KUROSAWA Norio	
Sustainable Environmental Engineering	Professor Victor S. KUWAHARA	
	Professor MATSUYAMA Tatsushi	
	Professor IDA Junichi	
	Professor NAKASAKI Kiyohiko	