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First Year

Compulsory courses

First semester

OCEA0075-1	<i>Introduction to physical oceanography and marine meteorology</i> - JeanMarie BECKERS - [3d FW]	Q1	30	15	[+]	6
OCEA0082-5	<i>Carbon, nutrient, greenhouse gases dynamics in marine ecosystems and geological oceanography, Carbon, nutrient, greenhouse gases dynamics in marine ecosystems</i> (english language) - Alberto BORGES - [2d FW]	Q1	20	5	[+]	4
OCEA0014-1	<i>Mathematical analysis and modelling methods applied to the environment</i> - Eric DELHEZ	Q1	20	20	-	4
OCEA0057-6	<i>Marine Ecology, Introduction to marine ecosystems modelling</i> (english language) - Marilaure GRÉGOIRE	Q1	15	15	-	3
GCIV2040-2	<i>Swell and actions on marine structures</i> - Sébastien ERPICUM	Q1	15	5	-	2
OCEA0082-3	<i>Carbon, nutrient, greenhouse gases dynamics in marine ecosystems and geological oceanography, Geological oceanography</i> (english language) - Nathalie FAGEL - [3d FW]	Q1	20	20	[+]	4
OCEA0057-4	<i>Marine Ecology, Marine ecology</i> (english language) - Sylvie GOBERT, Mathieu POULICEK - [4d FW]			15	-	[+] 4
OCEA0059-2	<i>Remote Sensing of the Oceans, Introduction to satellite oceanography</i> (english language) - Yves CORNET	Q1	15	15	-	3

Second semester

OCEA0049-1	<i>Pelagian oceanography</i> - Sylvie GOBERT - [2d FW]			15	15	[+] 3
OCEA0011-2	<i>Coastal oceanography</i> - Aïda ALVERA AZCARATE - [3d FW]	Q2	20	10	[+] 5	
OCEA0019-1	<i>Biological oceanology</i> - Sylvie GOBERT - [8d FW]			30	-	[+] 8
OCEA0015-1	<i>Principles of interdisciplinary study of sea systems</i> - Marilaure GRÉGOIRE	Q2	20	20	-	3
DROI0725-1	<i>Law of the sea and of sea environment</i> - Philippe VINCENT	Q2	20	-	-	2
GEOG2012-1	<i>Coastal geomorphology</i> - Aurelia HUBERT - [2d FW]	Q2	20	10	[+] 3	
GEOG0620-1	<i>Economic geography of the sea</i> - Bernadette MERENNESCHOUMAKER	Q2	20	-	-	3
SSTA0001-1	<i>Integrated placement : preparation, fieldwork guidance, assistant writing up a report</i> - Aïda ALVERA AZCARATE, Sylvie GOBERT - [30h Mon. WS]			-	-	[+] 3

Second year

Compulsory courses

DOCU0450-2	<i>Documentation training applied to oceanography (bibliography and database)</i> - Aïda ALVERA AZCARATE, Ninfa GRECO - [30h Mon. WS]	Q1	-	-	[+] 5	
<i>Notice : this course is taught during the first semester</i>						
SMEM0003-1	<i>Final thesis</i> - COLLÉGIALITÉ	TA	-	-	-	25

Professional focus (organized during the 1st semester)

Optional courses

Choose one option from the following :

Option Oceanography

Choose courses totalling 30 ECTS out of the following :

SSTG0032-1	<i>Practical professional internship in oceanography</i> - COLLÉGIALITÉ - [1w Internship]					[+] 5
OCEA0020-1	<i>Current issues in oceanography</i> - Aïda ALVERA AZCARATE	Q2	15	15	-	4
OCEA0064-4	<i>Functional and Molecular Marine Microbiology, Molecular approaches to the diversity of marine microorganisms</i> (english language) -		15	15	-	3

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ZOOL0218-4	<i>Aquariology</i> - Christian MICHEL	Q1	30	-	-			3
OCEA0064-3	<i>Functional and Molecular Marine Microbiology, Marine bacteriology</i> (english language) - Mathieu POULICEK		15	30	-			3
OCEA0062-4	<i>Ecotoxicology and Biodegradation of Marine Pollutants, Biodegradation of organic molecules in a sea environment</i> (english language) - Mathieu POULICEK		20	-	-			3
ZOOL0233-1	<i>Biology of benthos and necton animals : vertebrates</i> - Eric PARMENTIER		15	10	-			3
OCEA0060-2	<i>Advanced Marine Zoology, Biology of benthos and necton animals : invertebrates</i> (english language) - Patrick DAUBY, Mathieu POULICEK - [2d FW]	Q1	15	15	[+]			3
BOTA0402-1	<i>Marine plant biology</i> - Anne GOFFART - [3d FW]	Q2	15	15	[+]			4
OCEA0023-1	<i>Complement of ecological modeling</i> - Marilaure GRÉGOIRE	TA	15	30	-			3
ZOOL0220-1	<i>Planctonology</i> - Anne GOFFART	Q2	15	30	-			3
OCEA0025-1	<i>Dynamics of nutrients in marine environment, part I : chemical and biochemical aspects</i> - Marc ELSKENS - [10h FW]		7,5	7,5	[+]			3
OCEA0025-2	<i>Dynamics of nutrients in marine environment, part II : ecological processes</i> - Anne GOFFART - [10h FW]	Q2	7,5	7,5	[+]			3
OCEA0055-2	<i>Biogeochemical Cycles in the Ocean, Biogeochemistry 1</i> (english language) - Bruno DELILLE, Anne MOUCHET - [2d FW]	Q1	20	-	[+]			3
OCEA0055-4	<i>Biogeochemical Cycles in the Ocean, Biogeochemistry 2</i> (english language) - Bruno DELILLE, Anne MOUCHET	Q1	20	-	-			3
OCEA0052-2	<i>Marine cryosphere</i> - Bruno DELILLE	Q1	20	-	-			3
OCEA0043-2	<i>Ecoethology of the marine animals</i> - Christian MICHEL	Q1	30	-	-			3
OCEA0062-5	<i>Ecotoxicology and Biodegradation of Marine Pollutants, Marine ecotoxicology</i> (english language) - Krishna DAS	Q1	15	15	-			4
OCEA0027-1	<i>Applications of stable isotopes in marine sciences</i> - Gilles LEPOINT		15	15	-			4
OCEA0028-1	<i>Impact study in a sea environment : theory and practice</i> - Pierre LEJEUNE		10	20	-			3
OCEA0080-2	<i>Biochemistry, Physiology and Aquariology, Physiology and biochemistry of the marine animals</i> (english language) - Philippe COMPÈRE	Q1	15	15	-			3
OCEA0029-1	<i>Production techniques of marine fishes, molluscs and crustaceans</i> - Bruno FREDERICH	Q1	10	10	-			3
OCEA0030-1	<i>Sea Climatology and meteorology</i> - Michel ERPICUM	TA	30	-	-			3
ESHY0070-1	<i>Dynamics of lower atmospherical layers and air-sea interactions</i> - Louis FRANÇOIS	TA	30	15	-			4
OCEA0071-1	<i>Geophysical fluid dynamics - Part 1</i> - JeanMarie BECKERS	Q2	30	15	-			5
OCEA0081-1	<i>Numerical Methods in Geophysics - Part 2</i> - JeanMarie BECKERS	Q2	15	30	-			5
GEOLO256-1	<i>Geochemistry of sediments and interstitial water</i> - Nathalie FAGEL	Q1	15	15	-			3
GEOLO225-3	<i>Analytical Geochemistry</i> - Nathalie FAGEL	Q1	10	10	-			3
OCEA0042-1	<i>Introduction to marine Micropaleontology and palynology (marine microfossils)</i> - Emmanuelle JAVAUX	Q1	20	-	-			3
GEOLO006-2	<i>Rocks and sedimentary processes</i> - Frédéric BOULVAIN - [3d FW]	Q1	20	-	[+]			3
OCEA0063-1	<i>Biology of Marine Mammals</i> (english language) - <i>Part I : Ecology and Ecotoxicology</i> - Krishna DAS - <i>Part II : pathology and necropsies</i> - Thierry JAUNIAUX		15	-	-			4
OCEA0033-1	<i>Global changes and sea environment</i> - Anne MOUCHET	Q2	15	15	-			3
OCEA0056-2	<i>Marine Plant Biology and Ecology, Marine phanerogames ecology</i> (english language) - Sylvie GOBERT		15	10	-			3
OCEA0056-3	<i>Marine Plant Biology and Ecology, Techniques of sampling in marine ecology</i> (english language) - Sylvie GOBERT		15	10	-			3
OCEA0035-1	<i>Data acquisition and analysis, complements</i> - Aïda ALVERA AZCARATE	Q1	15	10	-			3
OCEA0144-1	<i>Ecology of the coral reefs</i> (english language) - Mathieu POULICEK		30	-	-			3
OCEA0059-3	<i>Remote Sensing of the Oceans, Advanced satellite oceanography</i> (english language) - Yves CORNET	Q1	15	15	-			3

Exceptionally, and with the agreement of the jury, one or several courses can be chosen in another program (for instance, in relation with the student's final dissertation,...)

Option Modelling Marine Environments

OCEA0023-1	<i>Complement of ecological modeling</i> - Marilaure GRÉGOIRE	TA	15	30	-			3
OCEA0036-1	<i>Structures and applications of marine hydrodynamic models</i> - Alexander BARTH		15	15	-			3

OCEA0055-3	<i>Biogeochemical Cycles in the Ocean, Biogeochemistry 1</i> (english language) - Bruno DELILLE, Anne MOUCHET	Q1	20	-	-	3
OCEA0073-1	<i>Numerical methods in geophysics, Part 1</i> - JeanMarie BECKERS	Q2	15	30	-	3
Choose courses totalling 18 ECTS from the following :						
SSTG0032-1	<i>Practical professional internship in oceanography</i> - COLLÉGIALITÉ - [1w Internship]		-	-	[+]	5
OCEA0020-1	<i>Current issues in oceanography</i> - Aïda ALVERA AZCARATE	Q2	15	15	-	4
OCEA0071-1	<i>Geophysical fluid dynamics - Part 1</i> - JeanMarie BECKERS	Q2	30	15	-	5
OCEA0072-1	<i>Geophysical fluid dynamics - Part 2</i> - JeanMarie BECKERS	Q1	30	15	-	5
ESHY0070-1	<i>Dynamics of lower atmospherical layers and air-sea interactions</i> - Louis FRANÇOIS	TA	30	15	-	4
OCEA0030-1	<i>Sea Climatology and meteorology</i> - Michel ERPICUM	TA	30	-	-	3
OCEA0055-4	<i>Biogeochemical Cycles in the Ocean, Biogeochemistry 2</i> (english language) - Bruno DELILLE, Anne MOUCHET	Q1	20	-	-	3
ZOOL0220-1	<i>Planctonology</i> - Anne GOFFART	Q2	15	30	-	3
OCEA0062-5	<i>Ecotoxicology and Biodegradation of Marine Pollutants, Marine ecotoxicology</i> (english language) - Krishna DAS	Q1	15	15	-	4
OCEA0028-1	<i>Impact study in a sea environment : theory and practice</i> - Pierre LEJEUNE		10	20	-	3
OCEA0035-1	<i>Data acquisition and analysis, complements</i> - Aïda ALVERA AZCARATE	Q1	15	10	-	3
OCEA0033-1	<i>Global changes and sea environment</i> - Anne MOUCHET	Q2	15	15	-	3
OCEA0052-2	<i>Marine cryosphere</i> - Bruno DELILLE	Q1	20	-	-	3
OCEA0081-1	<i>Numerical Methods in Geophysics - Part 2</i> - JeanMarie BECKERS	Q2	15	30	-	5
OCEA0059-3	<i>Remote Sensing of the Oceans, Advanced satellite oceanography</i> (english language) - Yves CORNET	Q1	15	15	-	3

Exceptionally, and with the agreement of the jury, one or several courses can be chosen in another program (for instance, in relation with the student's final dissertation,...)

Master Erasmus Mundus MER : Marine Environment and Resources

Compulsory course

OCEA0057-7	<i>Marine Ecology</i> (english language) - <i>Marine ecology</i> - Sylvie GOBERT, Mathieu POULICEK - [6d FW]	15	-	[+]	6
	- <i>Introduction to marine ecosystems modelling</i> - Marilaure GRÉGOIRE	15	15	-	

Optional courses

Courses totaling 24 credits have to be chosen among :

Framework : global ocean environment

OCEA0055-5	<i>Biogeochemical Cycles in the Ocean</i> (english language) - <i>Biogeochemistry 1</i> - Bruno DELILLE, Anne MOUCHET	20	-	-	6
	- <i>Biogeochemistry 2</i> - Bruno DELILLE, Anne MOUCHET	20	-	-	
OCEA0056-1	<i>Marine Plant Biology and Ecology</i> (english language) - <i>Marine phanerogames ecology</i> - Sylvie GOBERT	15	10	-	6
	- <i>Techniques of sampling in marine ecology</i> - Sylvie GOBERT	15	10	-	
OCEA0082-1	<i>Carbon, nutrient, greenhouse gases dynamics in marine ecosystems and geological oceanography</i> (english language) - <i>Carbon, nutrient, greenhouse gases dynamics in marine ecosystems</i> - Alberto BORGES	20	5	-	6
	- <i>Geological oceanography</i> - Nathalie FAGEL - [1d FW]	20	20	[+]	
OCEA0059-1	<i>Remote Sensing of the Oceans</i> (english language) - <i>Introduction to satellite oceanography</i> - Yves CORNET	15	15	-	6
	- <i>Advanced satellite oceanography</i> - Yves CORNET	15	15	-	

Scientific challenges and opportunities : marine environment protection and resources protection

OCEA0060-1	<i>Advanced Marine Zoology</i> (english language) - <i>Biology of benthos and necton animals : invertebrates</i> - Patrick DAUBY, Mathieu POULICEK	15	15	-	6
	- <i>Ecoethology of the marine animals</i> - Christian MICHEL	30	-	-	
	- <i>Ecology of the coral reefs</i> - Mathieu POULICEK	30	-	-	
OCEA0080-1	<i>Biochemistry, Physiology and Aquariology</i> (english language)				6

	- <i>Physiology and biochemistry of the marine animals</i> - Philippe COMPÈRE	15	15	-	
	- <i>Aquariology</i> - Christian MICHEL	15	-	-	
OCEA0062-1	<i>Ecotoxicology and Biodegradation of Marine Pollutants</i> (english language)				6
	- <i>Biodegradation of organic molecules in a sea environment</i> - Mathieu POULICEK	20	-	-	
	- <i>Marine ecotoxicology</i> - Krishna DAS	15	15	-	
OCEA0063-1	<i>Biology of Marine Mammals</i> (english language)				6
	- <i>Part I : Ecology and Ecotoxicology</i> - Krishna DAS	15	-	-	
	- <i>Part II : pathology and necropsies</i> - Thierry JAUNIAUX	15	10	-	
OCEA0064-1	<i>Functional and Molecular Marine Microbiology</i> (english language)				6
	- <i>Marine bacteriology</i> - Mathieu POULICEK	15	30	-	
	- <i>Molecular approaches to the diversity of marine microorganisms</i> - Annick WILMOTTE	15	15	-	
	Data analysis : interpretation of environmental data				
OCEA0081-1	<i>Numerical Methods in Geophysics - Part 2</i> - JeanMarie BECKERS	Q2	15	30	- 6