

**Cycle view of the study programme**

B1 Or Th Pr Au Cr

**Compulsory course within the focus (B1 : 6Cr)**

OCEA0057-7	<i>Marine Ecology</i> (english language)	B1	TA						<b>6</b>
	- <i>Marine ecology</i> - Krishna DAS, Sylvie GOBERT - [5h Mon. WS]		10	-	[+]				
	- <i>Introduction to marine ecosystems modelling</i> - Marilaure GRÉGOIRE		15	15	-				
	- <i>Marine ecology fieldtrip</i> - Krishna DAS, Sylvie GOBERT - [6d FW]		-	-	[+]				

**Optional courses within the focus (B1 : 24Cr)**

Courses totaling 24 credits have to be chosen among : (B1 : 24Cr)

**Framework : global ocean environment**

OCEA0055-5	<i>Biogeochemical Cycles in the Ocean</i> (english language)	B1	Q1						<b>6</b>
	- <i>Biogeochemistry 1</i> - Odile CRABECK, Bruno DELILLE		20	-	-				
	- <i>Biogeochemistry 2 (Advanced Marine Geochemistry)</i> - Odile CRABECK, Bruno DELILLE		20	-	-				
OCEA0056-1	<i>Marine Plant Biology and Ecology</i> (english language)	B1	Q1						<b>6</b>
	- <i>Marine phanerogames ecology</i> - Sylvie GOBERT		15	10	-				
	- <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)	B1	Q1						<b>6</b>
	- <i>Carbon, nutrient, greenhouse gases dynamics in marine ecosystems</i> - Alberto BORGES		20	5	-				
	- <i>Marine sediment geochemistry</i> - Nathalie FAGEL		15	15	-				
OCEA0059-1	<i>Remote Sensing of the Oceans</i> (english language)	B1	Q1						<b>6</b>
	- <i>Introduction to satellite oceanography</i> - Aida ALVERA AZCARATE		15	15	-				
	- <i>Advanced satellite oceanography</i> - Aida ALVERA AZCARATE		15	15	-				

**Scientific challenges & opportunities : marine environment protection & resources protection**

OCEA0225-1	<i>Professional practice in marine / environmental sectors</i> (english language) - Sylvie GOBERT, Michel MARENGO	B1	Q2	-	-	-			<b>6</b>
OCEA0080-1	<i>Biochemistry, Physiology and Aquariology</i> (english language)	B1	Q1						<b>6</b>
	- <i>Physiology and biochemistry of the marine animals</i> - Philippe COMPÈRE		15	15	-				
	- <i>Aquariology</i> - Carole ROUGEOT		15	-	-				
OCEA0062-6	<i>Ecotoxicology and Biodegradation of Marine Pollutants, Marine ecotoxicology</i> (english language) - Krishna DAS - [15h Mon. WS]	B1	Q1	15	-	[+]			<b>6</b>
OCEA0063-1	<i>Biology of Marine Mammals</i> (english language)	B1	Q1						<b>6</b>
	- <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, Molecular approaches to the diversity of marine microorganisms</i> (english language) - Annick WILMOTTE	B1	Q1	25	25	-			<b>6</b>

**Data analysis : interpretation of environmental data**

OCEA0081-1	<i>Numerical Methods in Geophysics - Part 2</i> (english language) - JeanMarie BECKERS	B1	Q1	15	30	-			<b>6</b>
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**Compulsory Courses (B1 : 30Cr)**

STFE9002-1	<i>Master thesis</i> - COLLÉGIALITÉ	B1	TA	-	-	-			<b>30</b>
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