

## Block view of the study programme

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### Block 1

#### Compulsory courses

OCEA0075-1	<i>Physical oceanography and marine meteorology</i> (english language) - <i>Theory and practice</i> - JeanMarie BECKERS - <i>Fieldwork trip</i> - JeanMarie BECKERS - [3d FW]	Q1	30	15	-	[+]	6
OCEA0086-1	<i>Chemical oceanography</i> (english language) - Alberto BORGES - [2d FW]	TA	20	5		[+]	4
OCEA0087-1	<i>Satellite oceanography</i> (english language) - Aida ALVERA AZCARATE	Q1	15	15			3
GEOL1039-1	<i>Geological oceanography</i> - <i>From theory to field work</i> - Nathalie FAGEL - [1d FW] - <i>Additional field work</i> - Nathalie FAGEL - [2d FW]	Q1	20	20		[+]	5
OCEA0088-1	<i>Marine ecology</i> (english language) - Krishna DAS, Sylvie GOBERT - [5h Mon. WS, 4d FW]	TA	10			[+]	4
OCEA0089-1	<i>Introduction to marine ecosystems modelling</i> (english language) - Marilaure GRÉGOIRE	Q1	15	15			3
OCEA0014-1	<i>Mathematical analysis and modelling methods applied to the environment</i> (english language) - Marilaure GRÉGOIRE	Q1	20	20			4
OCEA0049-1	<i>Pelagic oceanography</i> - Sylvie GOBERT - [20h Mon. WS, 2d FW]	Q2	10			[+]	4
OCEA0011-2	<i>Coastal oceanography</i> - Aida ALVERA AZCARATE - [3d FW]	Q2	20	10		[+]	5
OCEA0019-1	<i>Biological oceanology</i> - Sylvie GOBERT - [20h Mon. WS, 8d FW]	Q2	10			[+]	6
OCEA0090-1	<i>Dynamics of marine ecosystems</i> - Marilaure GRÉGOIRE	Q2	20	20			4
DROI0725-1	<i>Law of the sea and of sea environment</i> - Philippe VINCENT	Q2	20				2
GEOG0043-1	<i>Developing marine resources</i> - Guénaël DEVILLET	Q2	20				3
GEOG2012-1	<i>Coastal geomorphology, changing sea levels and the vulnerability of coastal regions</i> - Aurelia HUBERT - [3d FW]	Q2	20	10		[+]	3
OCEA0091-1	<i>Methodological approach to oceanography practice</i> - Aida ALVERA AZCARATE, Sylvie GOBERT - [30h Mon. WS]	Q2				[+]	4

*Notice* : A practical, two-week work placement (sampling on a boat, diving, dosages, plankton, benthos, data bases, etc.) is carried out at STARESO, the University's Station de Recherches Sous-Marines et Océanographiques (Calvi, France) at the end of the first block of the Masters in Oceanography, to carry out practical work associated with subjects covered during the year (physical, biological, geological, chemical oceanography, etc.).

### Block 2

#### Compulsory courses

DOCU0461-1	<i>Documentary training and preparing a dissertation</i> - <i>Bibliographic research</i> - Michaël OVIDIO, Carole ROUGEOT - [20h Mon. WS] - <i>Preparation of a scientific and/or technical report</i> - Michaël OVIDIO, Carole ROUGEOT - [10h Mon. WS]	Q1				[+]	3
SMEM0003-1	<i>Final thesis</i> - COLLÉGIALITÉ	TA					27

#### Focus choice

Choose one focus from the following :

##### Research Focus

SSTG0032-1	<i>Internship</i> - Gilles LEPOINT, N... - [1mois Internship]	TA				[+]	6
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OCEA0020-1 *Current issues in oceanography* - Aida ALVERA AZCARATE, COLLÉGIALITÉ, Sylvie GOBERT Q1 15 15 - 4

In agreement with the Jury, choose courses for a total of 20 credits, in at least two different fields, from :

#### Biogeochemistry and climate change

OCEA0219-1 *Biogeochemical Cycles in the Ocean* (english language) - Bruno DELILLE, Anne MOUCHET - [2d FW] Q1 20 - [+] 3

OCEA0220-1 *Biogeochemical Cycles in the Polar Ocean and Sea Ice* (english language) - Bruno DELILLE, Anne MOUCHET Q1 20 - - 3

OCEA0025-1 *Dynamics of nutrients in marine environment : chemical and biochemical aspects* - Cédric MORANA - [10h FW] Q1 7,5 7,5 [+] 3

GEOL0256-1 *Marine sediment geochemistry* (english language) - Nathalie FAGEL Q1 15 15 - 4

OCEA0033-1 *Global changes and sea environment* - Anne MOUCHET - Suppl : Aida ALVERA AZCARATE, JeanMarie BECKERS, Sylvie GOBERT Q2 15 15 - 3

#### Marine ecology and biodiversity

BIOL0808-3 *Functional morphology, Marine vertebrates* - Eric PARMENTIER Q1 15 10 - 3

OCEA0093-1 *Molecular approaches to the diversity of marine microorganisms* (english language) - Annick WILMOTTE Q1 15 15 - 3

OCEA0094-1 *Marine phanerogames ecology* (english language) - Sylvie GOBERT Q1 15 10 - 3

OCEA0063-1 *Biology of Marine Mammals* (english language)  
- Part I : Ecology and Ecotoxicology - Krishna DAS Q1 15 - - 4  
- Part II : pathology and necropsies - Thierry JAUNIAUX 15 10 -

OCEA0083-1 *Physiology and biochemistry of the marine animals* (english language) - Philippe COMPÈRE Q1 15 15 - 3

OCEA0223-1 *Biodiversity of tropical coastal regions: study and intercultural context* - Bruno FREDERICH, Gilles LEPOINT, Richard RASOLOFONIRINA, Gwendoline ROMMELAERE - [15d FW] Q2 10 - [+] 4

#### Modeling and operational oceanography

OCEA0096-1 *Ecological and biogeochemical cycles modeling* - Arthur CAPET, Marilaure GRÉGOIRE, Guy MUNHOVEN Q1 15 30 - 3

OCEA0036-1 *Structures and applications of marine hydrodynamic models* (english language) - Alexander BARTH Q1 15 15 - 3

OCEA0073-1 *Numerical methods in geophysics, Part 1* - JeanMarie BECKERS Q2 15 30 - 3

OCEA0097-1 *Data assimilation and inverse methods* (english language) - Alexander BARTH Q1 30 - - 3

OCEA0071-1 *Geophysical fluid dynamics - part 1* (english language) - JeanMarie BECKERS Q2 30 15 - 5

SPAT0024-2 *Meteorology* (english language)  
- Part 1 - Louis FRANÇOIS Q1 20 10 - 6  
- Part 2 - Louis FRANÇOIS 20 10 -

#### Exploitation of marine resources, anthropic pressures

ZOOL0218-4 *Aquariology* - Marie BOURNONVILLE Q1 20 - - 3

OCEA0227-1 *Tools for analysis and assistance for integrated management* - JeanFrançois DELIÈGE, Sylvie GOBERT Q1 15 15 - 3

OCEA0226-1 *Introduction to aquaculture* - Carole ROUGEOT Q1 30 - - 3

OCEA0084-1 *Marine ecotoxicology* (english language) - Krishna DAS - [15h Mon. WS] Q1 15 - [+] 4

OCEA0144-1 *Biology of the coral reefs* - Stéphane ROBERTY Q1 30 - - 3

OCEA0158-1	<i>Phytoplankton, a tool for supporting the management of the marine environment</i> - Anne GOFFART - [10h Mon. WS]	Q1	10	8	[+]	4
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#### Data acquisition and processing

OCEA0159-1	<i>Advanced satellite oceanography</i> (english language) - Aida ALVERA AZCARATE	Q1	15	15	-	3
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OCEA0224-1	<i>Statistical analysis of oceanographic data</i> - Arthur CAPET, Marilaure GRÉGOIRE, Patrick MEYER	Q1	15	15	-	3
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OCEA0027-1	<i>Applications of stable isotopes in marine sciences</i> - Gilles LEPOINT, Loïc MICHEL	Q1	15	15	-	4
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OCEA0085-1	<i>Methods of investigation, observation and analysis of marine plankton</i> - Anne GOFFART - [12h Mon. WS]	Q1	10	5	[+]	4
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GEOL0021-7	<i>Geophysical prospecting</i> - Frédéric NGUYEN - [5d FW, 20h Proj.]	Q2	26	20	[+]	5
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[...] Exceptionally, and with the agreement of the Jury, one or several courses can be chosen in another programme (for instance, in relation with the student's final dissertation,...)

#### Specialised focus in integrated management of aquatic resources and aquaculture

ZOOL0234-1	<i>Diversity of halieutic species and breeding: fish, shellfish and molluscs</i> - Bruno FREDERICH	Q1	15	10	-	2
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ZOOL0235-1	<i>Physiology applied to aquaculture: a balance between productivity and respect for animal well-being</i> - Carole ROUGEOT	Q1	40	20	-	4
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HULG2012-2	<i>Fish and shellfish nutrition and feeding</i> - Patrick KESTEMONT	Q1	15	-	-	2
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BIOL0218-1	<i>Ecological monitoring and managing fishery resources</i> - Michaël OVIDIO	Q1	10	15	-	2
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BIOL0219-1	<i>Ecology and the production of algae, examples of digital analysis</i> - Damien SIRJACOBS	Q2	10	10	-	2
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ZOOL0236-1	<i>Ecology and the production of zooplanktonic organisms</i> - Célia JOAQUIMJUSTO	Q2	10	10	-	2
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BIOL0220-1	<i>Operation and integrated management of continental aquatic environments</i> - Michaël OVIDIO	Q2	10	10	-	2
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VETE0206-1	<i>Immunology, virology and vaccinology of aquatic species</i> - Alain VANDERPLASSCHEN	Q1	18	2	-	2
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VETE0207-1	<i>Pathology, bacteriology and parasitology of aquatic species</i> - Thierry JAUNIAUX	Q2	15	10	-	2
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VETE2007-1	<i>Management of the quality and safety of foodstuffs derived from aquaculture and fishing</i> - Antoine CLINQUART, Véronique DELCENSERIE, Nicolas KORSAK KOULAGENKO, MarieLouise SCIPPO - [5h Vis.]	Q2	15	-	[+]	2
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ZOOL0237-1	<i>Aquaculture production system: adaptability, innovation and integration in a sustainable environment</i> - Carole ROUGEOT - [16h Vis.]	Q1	40	20	[+]	4
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ZOOL0238-1	<i>Integration of aquaponic aquaculture systems into urban and semi-urban agriculture</i> - Haissam JIJAKLI	Q1	12	-	-	2
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GEOG0272-1	<i>Economic issues and exploitation of the marine aquatic environment</i> - Guénaël DEVILLET	Q2	10	10	-	2
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#### Bloc d'aménagement du programme de l'année

### Additional ECTS (max 15-60) Master in oceanography (120 ECTS)

**Optional courses**

The refresher programme, for a maximum of 60 credits, will be established by the jury of the Masters in Oceanography, depending on the student's prior training: this programme will enable the student to acquire the basic knowledge required in relevant fields (statistics, IT, biology, chemistry, physics, etc.).

[...] Between 15 and 60 ECTS of courses