

**Block view of the study programme**

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**Block 1**

**Compulsory Courses**

STFE9002-1 *Master thesis - COLLÉGIALITÉ* TA - - - **30**

**Focus courses**

**Single Focus**

**Research Focus**

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

Courses totaling 24 credits have to be chosen among :

**Framework : global ocean environment**

OCEA0055-5 *Biogeochemical Cycles in the Ocean* (english language) Q1 **6**  
 - *Biogeochemistry 1* - Odile CRABECK, Bruno DELILLE 20 - -  
 - *Biogeochemistry 2 (Advanced Marine Geochemistry)* - Odile CRABECK, Bruno DELILLE 20 - -

OCEA0056-1 *Marine Plant Biology and Ecology* (english language) Q1 **6**  
 - *Marine phanerogames ecology* - Sylvie GOBERT 15 10 -  
 - *Techniques of sampling in marine ecology* - Sylvie GOBERT 15 10 -

OCEA0082-1 *Carbon, nutrient, greenhouse gases dynamics in marine ecosystems and geological oceanography* (english language) Q1 **6**  
 - *Carbon, nutrient, greenhouse gases dynamics in marine ecosystems* - Alberto BORGES 20 5 -  
 - *Marine sediment geochemistry* - Nathalie FAGEL 15 15 -

OCEA0059-1 *Remote Sensing of the Oceans* (english language) Q1 **6**  
 - *Introduction to satellite oceanography* - Aida ALVERA AZCARATE 15 15 -  
 - *Advanced satellite oceanography* - Aida ALVERA AZCARATE 15 15 -

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

OCEA0225-1 *Professional practice in marine / environmental sectors* (english language) - Sylvie GOBERT, Michel MARENGO Q2 - - - **6**

OCEA0080-1 *Biochemistry, Physiology and Aquariology* (english language) Q1 **6**  
 - *Physiology and biochemistry of the marine animals* - Philippe COMPÈRE 15 15 -  
 - *Aquariology* - Marie BOURNONVILLE 15 - -

OCEA0062-6 *Ecotoxicology and Biodegradation of Marine Pollutants, Marine ecotoxicology* (english language) - Krishna DAS - [15h Mon. WS] Q1 15 - [+]  
**6**

OCEA0063-1 *Biology of Marine Mammals* (english language) Q1 **6**  
 - *Part I : Ecology and Ecotoxicology* - Krishna DAS 15 - -  
 - *Part II : pathology and necropsies* - Thierry JAUNIAUX 15 10 -

OCEA0064-1 *Functional and Molecular Marine Microbiology, Molecular approaches to the diversity of marine microorganisms* (english language) - Annick WILMOTTE Q1 25 25 - **6**

**Data analysis : interpretation of environmental data**

OCEA0081-1 *Numerical Methods in Geophysics - Part 2* (english language) - JeanMarie BECKERS Q1 15 30 - **6**

**Block 2**