

## BIOCHEMISTRY OF COASTAL SYSTEMS

**Credits: 5,0 ECTS**

### Brief description of contents:

- Differential aspects of biochemistry in coastal areas: importance of the interfaces
- Sedimentation processes and contribution of organic matter to sediment
- Physicochemical processes in the sediment-water interface. Mass transfer mechanisms
- Microbial biogeochemistry in the sediment-water interface. Organic matter mineralisation in oxic and anoxic conditions
- Diagenetic models in sediment
- Pelagic and benthic primary production in coastal environments: importance of benthic regeneration and nutrient contribution
- Biogeochemical cycles of C, N, P and Si in coastal systems
- Interrelation between biogeochemical processes in coastal zones and global change
- Sedimentation rate estimate in coastal systems (practical classes)
- Characterisation of the sediment-water interface with microelectrodes (practical classes)
- Quantification of benthic fluxes and gas transfer processes between the water-atmosphere interface (practical classes)

### Evaluation system:

SYSTEM	WEIGHT
Written or oral exams	20 – 40
Written projects and reports	30 – 50
Presentation of exercises, topics and projects	20 – 40