

ADAPTABLES

UNIVERSITY MICROCREDENTIAL ON ADAPTATION
PATHWAYS TO CLIMATE CHANGE THROUGH
MANAGEMENT AND RESTORATION OF
ESTUARINE ECOSYSTEMS

TRAINING ITINERARY

This degree provides an integrated view of the topic of climate change adaptation in coastal areas through a multidisciplinary approach that combines new knowledge on the ecology, risk assessment and environmental management of estuarine ecosystems.

- Introduce the concepts of estuarine ecosystems: what is an estuary, what are its main components, what ecosystem services do they provide in relation to climate change.
- Define the basic concepts of risk and climate change in the coastal environment, as well as the different risk assessment systems, including the concept of 'nature-based solutions', by defining them and presenting real cases of application of this type of adaptation measures.
- Highlight the role of estuarine ecosystems as examples of adaptation to climate change in the different adaptation strategies, introducing the economic assessment of the ecosystem services provided by these natural communities, as well as the different existing financing methods for the implementation of conservation and restoration measures of estuarine ecosystems in relation to their role of protection and mitigation of climate change.



EVALUATION

- Online tests at the end of each module of each MOOC. The final mark for each MOOC will be obtained as the average mark of the different modules.
- Global test of the 3 MOOCs, previous and compulsory for the assignment of the Final Programme Work (TFP)
- Development and defense of the TFP.

MICROCREDENTIAL CONSISTS OF 3 COURSES + TFP

1. CLIMATE CHANGE SERVICES PROVIDED BY ESTUARIES AND ESTUARINE ECOSYSTEMS AND QUANTIFICATION TOOLS

1. Introduction to estuarine ecosystems
2. Services and benefits of estuarine ecosystems
3. Mitigation service
4. Adaptation services against flooding and erosion

2. CLIMATE CHANGE RISK IN COASTAL AREAS, AND ESTUARINE-BASED ADAPTATION STRATEGIES

1. Introduction to Climate Change
2. Risk analysis
3. Climate change risk on coastal ecosystems
4. Introduction to Nature-Based Solutions

3. FINANCIAL TOOLS TO SUPPORT ESTUARIES RESTORATION AND CONSERVATION PROJECTS

1. Strategies to climate change adaptation through conservation
2. Economic value of ecosystems services: Methods and tools
3. Incentivizing, financing and governing NbS
4. types of financial services: Insurances

TFP: FINAL PROGRAMME WORK

TEACHING MATERIALS

Teaching materials of the 3 MOOCs were co-created, under creative commons licence, in the ADAPTABLUES project “Adaptation to climate change through management and restoration of European estuarine ecosystems”, funded by the EU LIFE programme (LIFE18 CC/ES/001160) and developed through the collaboration of academics and researchers from the Institute of Environmental Hydraulics of the University of Cantabria, coordinator of the project, and the University of Coimbra.



AT A GLANCE

- **MODALITY:** Online itinerary (3 MOOCs)
- **DURATION:** 8 ECTS
- **FEE:** 375€
- **LANGUAGES:** English, with English, Spanish, German and Portuguese subtitles
- **PREREQUISITES:** None
- **TECHNICAL REQUIREMENTS:** Internet connectivity
- **CERTIFICATION:** UC University Microcredential