



Co-funded by the
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GIS application in marine resource management

No of Credits: 4,5 ECTs
Revised BSc. programme



Course Presentation

This course is a subject that equip students with the basic knowledge of database management and necessary skills in understanding, exploiting and applying an integrated technology that has been widely used in many fields, especially in marine resources management. The module provides students with skills in database design, GIS application to develop and the create thematic maps to serve in the field of marine resource management.

The principal purpose of the course is to give students the following knowledge:

- Understanding the basic knowledge of database management and applications of GIS in marine resource management
- Exploring various sources of geographic data and the types of spatial data
- How to collect and input geographical data into GIS system.
- Techniques for processing and analysing spatial data (spatial queries, buffering, overlays...)
- Methods for visualizing and presenting spatial data
- Organising and managing spatial datasets, databases.
- Final GIS project and present student's findings.

There are 10 topics in this course include: (1) Systematize basic knowledge of GIS and the ability to apply GIS in marine resources management; (2) Some GIS software, content and data structure of GIS database; (3) Get familiar with the ARCGIS interface; (4) Building geodatabase; (5) Visualising database; (6) Database queries; (7) Spatial analysis; (8) Map conversion; (9) Map editor; (10) Building database.

The course will make most of interactive and self-reflective methods of teaching and learning. By the end of the course, successful students will:

- Understanding the basic knowledge of database management and applications of GIS in marine resource management
- Understanding various sources of geographic data and the types of spatial data,
- Inputting geographical data into GIS system.
- Visualising, presenting and analysing spatial data
- Building and managing spatial datasets, databases