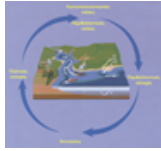




**Postgraduate Program of Studies**  
**MSc 'INTEGRATED COASTAL ZONE MANAGEMENT – I.C.Z.M.'**

<http://www.mar.aegean.gr>, E-mail: [m\\_sc\\_cm@aegean.gr](mailto:m_sc_cm@aegean.gr), Tel.: +30 22510 36862



**Objectives of the I.C.Z.M. MSc Program**

Since the academic year 2001-02, the Department of Marine Sciences runs the one-year MSc Course Program on 'INTEGRATED COASTAL ZONE MANAGEMENT', consisting of obligatory as well as optional modules. The course, which is in collaboration with the scientific staff of the **Hellenic Centre for Marine Research (H.C.M.R.)** and the **Fisheries Research Institute (F.R.I.)**, is offered in an environmental blended learning process. The objective of the course is to provide graduates with the scientific expertise needed to successfully deal with problems related to Integrated Coastal Management, emphasizing on the ecological and physical processes, ecosystem degradation and restoration, rational management of biological resources, Climate Change impact risk assessments, geo-hazard assessment and sustainable development.

**Aims**

The I.C.Z.M. program aims to provide scientific training to postgraduate students through both theoretical knowledge and hands-on exercises. The ultimate goals of the I.C.Z.M. MSc Program are:

1. To contribute to the development of high-level professionals and researchers in I.C.Z.M.
2. To advance basic and applied research in the coastal and marine environment considering the need for sustainable development.
3. The diffusion of expert scientific knowledge to the private and public sector involved in the I.C.Z.M.

Postgraduate students are trained in:

- the physical, chemical, biological and geological processes of the coastal and marine environment;
- the sustainable management of living resources, with particular focus on fisheries and aquaculture;
- the assessment of the quality of the coastal environment and the quantification of trace pollutants;
- Geographic Information Systems (GIS), the combination of satellite and ground-truth data, the quantitative analysis of spatial environmental data and the use/development of tools for I.C.Z.M.;
- the study of ecological processes in coastal marine ecosystems, with focus on eutrophication, biodiversity, primary production, marine food web analysis, and population dynamics;
- coastal hydrodynamics and morpho-dynamics and the effects of marine geo-hazards on the coastal and marine environment;
- I.C.Z.M. international and European policies and regulations and environmental impact assessment techniques

In addition, postgraduate students are trained:

- to use modern environmental data processing methods and multi-criteria methodologies as decision-making tools;
- in the planning of the Integrated Management of Coastal Areas and River basins, through modeling and the application of other novel methods and techniques;
- in the application of innovative methodologies in operational oceanography and fisheries management;
- in the risk assessment of coastal infrastructures

**The MSc I.C.Z.M.** is a two-semester program and includes lectures, laboratory and field work, computer exercises and an MSc Dissertation. Since 2001 more than 230 students have graduated the MSc Program.

| 1st SEMESTER              |  |      |
|---------------------------|--|------|
| MANDATORY MODULES         |  | ECTS |
| 1                         | COASTAL GEO-HAZARDS  | 6    |
| 2                         | COASTAL ECOLOGY AND BIODIVERSITY                                       | 6    |
| 3                         | COASTAL AND MARINE POLLUTION   | 6    |
| 4                         | ENVIRONMENTAL DATA ANALYSIS  | 6    |
| 5                         | GEOINFORMATICS WITH APPLICATIONS IN THE COASTAL AND MARINE ENVIRONMENT | 6    |
| 2nd SEMESTER              |  |      |
| MANDATORY MODULES         |  |      |
| 1                         | COASTAL OCEANOGRAPHY AND CLIMATE CHANGE                                | 6    |
| 2                         | COASTAL ZONE MANAGEMENT  | 6    |
| OPTIONAL MODULES (1 of 3) |  |      |
| 1                         | MARINE BIOLOGICAL RESOURCES – FISHERIES AND AQUACULTURE                | 4    |
| 2                         | APPLIED MARINE ECOLOGY   | 4    |
| 3                         | POLICIES AND REGULATION FOR COASTAL MANAGEMENT                         | 4    |
| MSc DISSERTATION          |  | 14   |
| Total ECTS                |  | 60   |

