



## Master in Geoinformation in Environmental Management

The Programme of Geoinformation in Environmental Management focuses on the ever growing demand for highly specialized and effectively educated scientists to tackle significant environmental issues in today's natural environment, agro-environmental issues and land use functions.

Graduates, professionals and specialists from the Mediterranean and Balkan region majoring in a compatible discipline and background knowledge on Environmental issues have the opportunity to specialize on (a) Geographical Information Systems and Remote Sensing, their application to Environmental Management and other problems related to Environment, (b) Utilization of quantitative and decision support tools to strategic and environmental impact assessment within the environmental policy and legislative framework of the European Union.

The attainment of the M.Sc. degree qualifies them with in depth academic knowledge and practical skills in Environmental Management, which enable a successful continuation of their doctorate studies and/or pursue of a career in both the public and private sector.

### REQUIREMENTS

Applicants must have the academic level that qualifies them to undertake postgraduate level studies in their home country or equivalent to a minimum of four years undergraduate studies. Their degree must also be in a discipline compatible with the area of specialization requested. Additional conditions may be required for certain programmes.

The working language of MAICH is English. Selection is made on the basis of the files submitted by applicants – priority being given to applicants from CIHEAM member countries, and takes account of their academic results, professional experience acquired in the chosen field of specialization, reference letters and their competence in English.

### APPLICATION

The following documents must be sent by post:

1. Completed application form (download available at: <http://www.maich.gr/p/admissions/application>)
2. Three (3) recommendation letters
3. Certified copy of University Diploma translated in English
4. Certified copy of University Transcripts translated in English
5. Medical certificate
6. English TOEFL certificate
7. Two (2) photos, passport size

Application Submission deadline **June 30<sup>th</sup>, 2010**



**Scholarships** All selected candidates are awarded scholarships, fully or partly covering a) tuition, b) board, c) accommodation and d) health insurance.

### Indicative M.Sc. Research Topics

- » Desertification Monitoring,
- » Environmental Resource Management,
- » Environmental Impact Assessment,
- » Landscape Ecology,
- » Soil Erosion Risk Assessment,
- » Agricultural Practices Monitoring,
- » Precision Agriculture,
- » Forest Fire Risk Assessment
- » Fire Behaviour Modelling & Effectiveness of Fire Retardants,
- » Management of Mediterranean Ecosystems, and»
- » Regional and Rural Development

For more information, visit our website at: <http://www.maich.gr/env> or send inquiries to [manakos@maich.gr](mailto:manakos@maich.gr), [dina@maich.gr](mailto:dina@maich.gr)

## EDUCATIONAL SEQUENCE

### 1<sup>ST</sup> SEMESTER October - February

#### Unit I: ENM5102.8.10.0 Introduction to Statistics - 8 ECTS

INT503.1.3.04.2 STATISTICS

ENM513.1.5.10.4 SPATIAL STATISTICS - THEORY

#### Unit II: ENM520.2.14.10.0 Management of Mediterranean Ecosystems - 14 ECTS

ENM521.2.4.09.5 ENVIRONMENT, ECOSYSTEMS PROCESSES AND ISSUES (1 field trip)

ENM522.1.2.09.1 ENVIRONMENTAL LEGISLATION

ENM523.2.4.10.1 MANAGEMENT OF GRAZING AND FOREST RESOURCES AND LANDSCAPES (1 field trip)

ENM525.2.4.10.3 SUSTAINABLE WATER RESOURCES MANAGEMENT

#### Unit III: ENM530.1.8.10.0 Remote Sensing and Image Processing - 8 ECTS

ENM531.1.4.10.2 REMOTE SENSING

ENM532.1.4.10.1 DIGITAL IMAGE ANALYSIS

### 2<sup>ND</sup> SEMESTER March - June

#### Unit IV: ENM540.1.18.10.0 Integrated GIS/RS Applications - 18 ECTS

ENM541.1.4.10.2 BASIC GEODESY & DIGITAL PHOTOGRAMMETRY

ENM515.2.4.10.2 GEOGRAPHICAL INFORMATION SYSTEMS

ENM516.1.4.10.5 GIS APPLICATIONS

ENM542.2.4.10.1 INTEGRATED GIS/RS CASE STUDIES

ENM543.1.2.10.2 ADVANCED METHODS IN REMOTE SENSING ANALYSIS

#### Unit V: ENM550.2.12.10.0 Environmental Assessment Processes - 12 ECTS

ENM551.2.4.10.1 STRATEGIC ENVIRONMENTAL ASSESSMENT

ENM553.2.4.10.1 EIA THEORY AND PROCESS (1 field trip)

ENM563.1.4.10.1 DECISION SUPPORT SYSTEMS USING GIS



### Part 2 - The Master of Science Program

(Project - 9 months duration, 60 ECTS)

The qualified second year graduates (Master of Science Degree candidates) pursue their research thesis under the supervision of visiting and/or own MAICh faculty in an environment fully equipped with modern facilities and the most recently updated software. Research addresses spearhead topics supporting national and EU Environmental policies within an interdisciplinary international scientific network.

## FACILITIES

### GIS/RS Laboratory

An extensive range of hardware (over 30 networked PCs, input, output, storage devices), and software (ArcGIS, ERDAS Imagine, ENVI, eCognition, and other ancillary supportive software packages) is available to support formal teaching and research activities.

### Automated Cartography Unit

ACU is dedicated to capturing (digitizers and scanners), processing, integration, archiving and printing (printers and plotters) of imaging and non-imaging datasets.

### Field Survey Unit

The Field Survey Unit is dedicated to support fieldwork and field campaigns with all the necessary equipment and tools.

### Mobile Unit for Field SPECTroradiometric Measurements (MUFSPeM@MED)

MUFSPeM@MED is dedicated to study, spectrally characterize earth surface materials, and normalize the registered signal into a typical physical value for the specific material.

### Forest Fire Wind Tunnel Simulator Unit

The wind tunnel facility of MAICh is used in different research projects related to forest fires. It meets all the international specifications for simulated fire and wind experiments.

