

Mediterranean Agronomic Institute of Chania

A. Centre of Operational Managerial Research

A2. Environmental Management

Objectives

Today, concern about the world's natural environment and how it is managed is increasingly receiving attention in the process of political decision-making. Sustainability, biodiversity, ecosystem health and integrity, old growth, climate change, rainforest and clear-cutting are words commonly used in everyday vocabulary.

Moreover, the reports of the World Commission on Environment and Development and of the Rio de Janeiro international summit meeting on the environment both focused on the problem of deforestation, desertification, loss of species and the need for sustainable management of forests and rural areas.

Environmental scientists and resource managers alike must now face the challenge to substantially expand the scale on which they analyse and manage natural ecosystems. Managing the environment is a dynamic process that requires an understanding of the complex relationships between the biotic and the abiotic components of the resources.

Management of the environment with the goal of sustainable development is possible only if it is based, on the one hand, on sound knowledge of the ecology of natural resources and the interaction of natural economic and social resources, and on the other hand, on the use of modern management methods and techniques. The majority of modern methods that have been developed for environmental management involve Multivariate Statistics, Spatial Statistics, Resource Economics, Operations Research, Remote Sensing, Geographic Information Systems and Environmental Impact Assessment.

1. Training sequence

Section 1 - Introductory (English, Computers) [11/10/2004-15/10/2004]

Unit 1 – Scientific English/ English TOEFL/ English TWE

Ms. L. Lucas, MAICh

Unit 2 – Information Technologies and Database Management

Dr. P. Drakos,
University of Crete – Greece

Section 2 - Spatial Statistics and Gis [18/10/2004-10/12/2004]

Unit 1 – Statistics

Prof. G. Markakis,
TEI of Heraklion, Crete – Greece

Unit 2 – Advanced Statistics

Prof. G. Markakis,
TEI of Heraklion, Crete – Greece

Unit 3 – G.I.S. Theory

Prof. N. Silleos,
Aristotle Univ. of Thessaloniki –
Greece

Unit 4 – G.I.S. Applications

Prof. N. Silleos,
Aristotle Univ. of Thessaloniki –
Greece

Unit 5 – Geographical Information Analysis

Prof. I. Hatzopoulos,
University of Aegean – Greece

Unit 6 – Spatial Statistics - Theory

Dr. E. Symeonakis,
University of Valencia – Spain

Unit 7 – Spatial Statistics – Practice

Prof. A. Mavromoustakos,
State Lab University of Arkansas -
USA

Section 3 - RS and Image Processing [13/12/2004-04/02/2005]

Unit 1 – Basic Geodesy & Digital Photogrammetry

Prof. K. Vouvalides,
Aristotle University of Thessaloniki –
Greece

Unit 2 – Remote Sensing Theory

Dr. E. Avgerinos,
MAICh

Unit 3 – Digital Image Processing

Mr. C. Karidas,
MAICh

Unit 4 – Remote Sensing Applications

Prof. K. Perakis,
University of Thessaly – Greece

Unit 5 – Integrated GIS/RS Case studies

Prof. K. Perakis,
University of Thessaly – Greece, and
Dr. I. Gitas,
Aristotle University of Thessaloniki –
Greece

Section 4 - Ecology & Management of Environmental Resources [07/02/2005-25/03/2005]

Unit 1 – Mediterranean Agricultural Environments

Dr. A. Gertsis,
American Farm School of
Thessaloniki – Greece

Unit 2 – Management of Mediterranean Ecosystems:
Shrublands, Grasslands, Forests

Prof. I. Ispikoudis,
Prof. V. Papanastasis, and
Dr. A. Dimitrakopoulos,
Aristotle University of Thessaloniki –
Greece

Unit 3 – Soil & Water Resource Management

Prof. G. Zalides,
Aristotle University of Thessaloniki,
Greece

Section 5 - Integrated Environmental Analysis Using GIS/RS [29/03/2005-13/05/2005]

Unit 1 – Quantitative Analysis of Mediterranean Ecosystems

Prof. E. Feoli,
University of Trieste – Italy

Unit 2 – Landscape Ecology and Environmental Modelling

Prof. G. Carsjens,
Wageningen University – The
Netherlands

Unit 3 – Decision Support using GIS

Dr. M. Dragan,
University of Trieste – Italy

Section 6 - Environmental Management & Planning [23/05/2005-24/06/2005]

Unit 1 – Spatial Planning & Environmental Impact Assessment

Prof. G. Carsjens,
Wageningen University – The
Netherlands

Unit 2 – Environmental Legislation

Prof. M. Kouskouna,
University of Athens – Greece

Unit 3 – Environmental Policy

Dr. M. Shelby,
Environmental Protection Agency -
USA