

Optional Module IDRISI: Applications in Forestry



Course code	IDRISI_E_FORESTRY
Dates	2 times per year
Duration	2 months
Accreditation	Elective Subjects UNIGIS MSc, UNIGIS Professional
Registration deadline	2 weeks before course starts
Credits	3 ECTS
Module Language	English

Course Description and Course Objectives

The module explores the important role of GIS in forest management and resource assessment. Several GIS applications and techniques are introduced in the six study cases included in this module, emphasizing not only the economic significance, but the ecological and the cultural “character” of forests. The course objective is not to teach IDRISI software per se but to demonstrate some methods used to implement IDRISI software applications related to forestry.

Course Outline

- General Forest Management
- Habitat Analysis
- Mapping suitable locations for reforestation
- Gypsy Moth Defoliation of Forests
- Forest Management
- Analyzing deforestation and soil loss
- Monitoring Land use using AVHRR and TM Imagery

Methods

Suitability analysis using basic GIS applications for locating optimal harvest areas - database query techniques for habitat analysis – map algebra and modeling tools for the definition of areas suitable for reforestation - prediction of defoliated forest areas by using regression analysis - distance and context operations in forest management - unsupervised classification on remote sense data for monitoring purposes.

Module meets
www.euromastergi.org
requirements

Elective Modules
SYLLABUS



Optional Module IDRISI: Applications in Forestry



Instruction:
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Born in Athens (Greece) Anna Karnassioti holds a University Degree in Geology (School of Geology - Faculty of Sciences of the Aristotle University of Thessaloniki, Greece). Since 2007 works for the UNIGIS International team of the University of Salzburg Centre for Geoinformatics and part of her tasks are the provide feedback to a student based on availability of correct answers. These should be organization and maintenance of the LMS (Learning Management System) content. Staff member of the IDRISI Resource Centre SALZBURG (IRC).

Methods

The module is delivered in form of an instructed self-study that is based on explorative learning process. Theoretical concepts are complemented with practice oriented examples and demonstrated with help of multimedia elements. A discussion forum is used for communication among students and the instructor. Upon completion of the module students are requested to evaluate the module, which is a part of our quality assurance policy and practice.

Software Requirements

IDRISI software from Clarklabs

Prerequisites

Good command of English, be acquainted with the IDRISI system environment and its basic applications.

Assessment and Grading

Instructor assessment is the part of a course that reflects student's achievements in this module and is conducted through assessing module assignments. It counts towards the academic qualification.



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