Teaching Guide			
Course	LEARNING BY DOING IN FORESTRY: NEW TOOLS FOR NEW CHALLENGES		
Degree	MASTER ON MEDITERRANEAN FORESTRY AND NATURAL RESOURCES MANAGEMENT		
Plan	506	Code	53030
Period	1ST PERIOD	Type	Elective
Level	MASTER	Course	
ECTS Credits	6		
Language	ENGLISH		
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Department	Producción Vegetal y Recursos Forestales		

GENERAL SCOPE

Forests are facing new global demands and stresses that require new forestry strategies. Forester needs new foundation that allow them to develop forestry strategies to provide goods and services while ecosystems structure and functions are maintained and enhanced. Thus the MEDfOR specialization on "Adaptive forestry strategies to provide good and services while coping with global change challenge" provides methods and foundations that will allow students to apply this advanced knowledge to address and develop these new forestry strategies.

GENERAL OBJECTIVES

Following the Dublin Descriptors, students of this course must:

i) have demonstrated knowledge and understanding that is founded upon and extends and/or enhances that typically associated with Bachelor's level, and that provides a basis or opportunity for

originality in developing and/or applying ideas, often within a research3 context;

ii) can apply their knowledge and understanding, and problem solving abilities in new or unfamiliar environments within broader (or multidisciplinary) contexts related to their field of study;

iii) have the ability to integrate knowledge and handle complexity, and formulate judgements with incomplete or limited information, but that include reflecting on social and ethical responsibilities linked to the application of their knowledge and judgements;

iv) can communicate their conclusions, and the knowledge and rationale underpinning these, to specialist and non-specialist audiences clearly and unambiguously;

v) have the learning skills to allow them to continue to study in a manner that may be largely self-directed or autonomous.

In this framework the students will be able to design, manage and apply techniques on (i) Adaptive Management, (ii) Forest Management under global change, (iii) silvicultural path design, (iv) quantitative silviculture and (v) monitoring, experimentation and data analysis.

PROGRAMME TOPICS

1. Adaptive Management

2. Global change: impact on forest and forestry. Mitigation and adaptation

3. Quantitative silviculture and Forest modeling.

4. Silvicultural path design

5. Monitoring, experimentation and data analysis

ASSESSMENT

Course requirements include active participation (10%), the presentation of a class summary (10%), a class project (30%) and a final exam (50%).

TEACHING METHODS & WORK PLAN

Activities in person		Personnal work	
Theory	20	Reviewing concepts	30
Labs and field trips	28	Practical work	60
Seminars	10		
Other activities	2		

TOTAL	60	TOTAL	90

ABILITIES TO BE DEVELOPPED

GENERAL ABILITIES:

- ➢ Know and apply knowledges in practice, analyzing, summarizing, organizing & planning
- ➢ To be able to communicate orally and writting in specialized meetings as well as for non expert people
- ➢ To be able to take decissions and solve problems
- ➢ To be able to work in different scale context s: local, regional, domestic & international scales
- ➢ To be able to work in cross-disciplinary and multi-ethnic groups
- ➢ To develop interpersonal relations, recognizing and appreciating other cultures and habitas as well as diversity and multiculturalilsm
- ➢ To get involved in sex equality in both teaching and personal spheres
- ➢ To develop creativity and use leadership abilities

SPECIFIC ABILITIES

- ➢ To give scientific knowledge from different fields that allow to face challenges and specific needs of Mediterranean forests
- ➢ To develop new management adaptive strategies based on Mediterranean ecosystems functions and processes knowledge

TEACHING RESOURCES

NOTICE: When needed specific updated resources for each section will be available weekly on UVa-Moodle platform

BRAVO, F., LEMAY, V., GADOW, K. VON, JANDL, R. (Eds) 2008. Managing Forest Ecosystems: The Challenge of Climate Change. Springer. ISBN: 978-1-4020-8342-6 342 pages

ROBINSON, A.P, HAMMAN J.D. 2011. Forest Analytics with R: An Introduction. Springer ISBN 978-1-4419-7761-8

Professor's *Curriculum vitae*

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