COURSE INFORMATION

NAME OF THE SUBJECT: BOTANICAL GEOGRAPHY

Code number: 757709323
Degree in Environmental Sciences
Academic Year: 2015-2016
Elective course. 4th year
Second semester: 1.5 hours a week
3 credits
Web site: http://www.uhu.es/pablo.hidalgo/docencia/botanicalgeo.html
Additional information available in Moodle.

TEACHING STAFF

Prof.: Pablo J. Hidalgo
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Office hours:
> First Semester: Monday 10:00 to 13:00. Tuesday from 10:00 to 13:00
>
> Second Semester: Monday 10:00 to 13:00. Tuesday from 10:00 to 13:00

PROGRAMME

1. DESCRIPTION

Botanical Geography (geobotanic) or the Science of Vegetation deals with the description, interpretation and prediction of types of community distribution, populations or other botanical units which can be found at comparable levels of integration in space and time.

2. PREREQUISITES

Previous notions of biology and botany are required. This course is recommended for students of Biology, Environmental Sciences, Geography, Forestry, etc. For other students please contact to professor.

3. OBJECTIVES/LEARNING OUTCOMES

The aim of this module is to provide the student some notions about the science of the study of the vegetation. Biogeography, bioclimatology and vegetation distribution in the world are the main topics of this subject. A special section will be focused on the habitats classifications done by the EU in the frame of the Habitat Directive.

By the end of the module students should be able to:

- To know the concepts of flora, vegetation and landscape.

- To understand the link between (bio)climatology and species distribution.

- Know the historical processes responsible of species distribution by means of (bio)geography.
- To study the main technics of vegetation analysis and description.

4. TEACHING METHODOLOGY

Theory: master class in the classroom using presentations and blackboard.
Excursion: visit to natural areas to understand and evaluate the dynamic of the vegetation.

5. CONTENTS

THEORY:

UNIT 1: INTRODUCTION
LESSON 1. INTRODUCTION TO BOTANICAL GEOGRAPHY.
LESSON 2. LIMITING FACTORS.
LESSON 3. PHYSIOLOGICAL AND MORPHOLOGICAL ADAPTATIONS.

UNIT 2: BIOCLIMATOLOGY
LESSON 4. BIOCLIMATOLOGY.
LESSON 5. EARTH BIOCLIMATIC CLASSIFICATION.

UNIT 3: BIOGEOGRAPHY
LESSON 6. SPECIES DISTRIBUTION MODELS.
LESSON 7. TEMPORAL VARIATION OF PLANT DISTRIBUTION.
LESSON 8. BIOGEOGRAPHY: CONCEPT, OBJECTIVES AND METHODOLOGY.
LESSON 9. BIOGEOGRAPHICAL CLASSIFICATION OF SPAIN.

UNIT 4: VEGETATION ANALYSIS AND CLASSIFICATION.
LESSON 10. INTRODUCTION TO VEGETATION ANALYSIS.
LESSON 11. PHYTOSOCIOLOGICAL METHOD AND NOMENCLATURE.
LESSON 12. HABITATS OF COMMUNITY IMPORTANCE CLASSIFICATION

PRACTICE:

Field trip to Natural Park of Sierra de las Nieves (Ronda, Málaga). Expected date: April 2016.

6. BIBLIOGRAPHY

ALCARAZ, F. (1999). Manual de teoría y práctica de geobotánica. Servicio de Publicaciones de la Universidad de Murcia.
BRAUN BLANQUET, J. (1979). Fitosociología. Bases para el estudio de las comunidades vegetales. Ed. Blume. Madrid.
RIVAS-MARTÍNEZ, S. (1996) La fitosociología en España. In: LOIDI, J. (ed.). Avances en Fitosociología: 149-174. Servicio Editorial de la Universidad del País Vasco.

RIVAS-MARTÍNEZ, S. y A. PENAS (1996). Biogeographic map of Europe. Cartographic Service, University of León. León.

RIVAS-MARTÍNEZ, S. (1987). Memoria del mapa de series de vegetación de España. Minist. Agric., Pesca y Alim.-ICONA. Madrid.

RIVAS-MARTÍNEZ, S. (1996). Geobotánica y Bioclimatología. Discurso Investidura Dr. Honoris Causa. Univ. Granada.

7. ASSESSMENT

Course assessment (30%) will consider the attendance, essays, activities, excursions, etc.
The final exam (70%) will be multiple choice and short answer.