Teaching guidelines – Course 2023/2024

Subject name	**Geobotany**		
Subject area	**Natural Sciences**		
Module	**Optional Module/ International Semester on Forestry**		
Qualification	**Bachelor degree in Forest and Natural Environment Engineering**		
Plan	**449**	**Code**	**47137**
Teaching period	**Spring Semester**	**Type/Nature**	**Optional**
Level/Stage	**Bachelor**	**Curso**	**2º**
ECTS Credits	**3**		
Language of Instruction	**English**		
Instructors	**Dra. María Isabel Pozo Romero, MsC, PhD.** Assistant Professor (subject coordinator, professor) **Dr. Jaime Madrigal González, PhD.** Senior Postdoctoral Researcher		
Contact details (email, pone number…)	mariaisabel.pozo@uva.es 979108458 (office) Main building (Green building) Office HF233 jaime.madrigal@uva.es 979108439 (office) Main building (Green building) Office HF2.34		
Departament	Agroforestry Sciences		
Date of review by the Degree Committee	June 24th, 2024		

1. General course description

1.1 Scope

This course explores the biogeography and ecology of the world´s main biomes. It introduces the earth´s biological history and development of regional floras. Topics covered in this course include the distribution patterns of biomes, from the poles to the tropics, their ecological adaptations to climate and soil, vegetation dynamics and response to disturbance. Land use and global environmental change will be also taken in account. The scope is global, with secondary emphasis on Mediterranean ecosystems.

1.2 Relationship with Academic Program

The course will develop a broad range of insights useful to forestry and natural resources students. It is an extraordinary introduction to the variety of trees and other plants of value to man, providing approaches to environmental and social problems.

1.3 Pre-requisites

There are not pre-requisites for Geobotany, although a background of Biology, Dendrology, Botany, Ecology, Climatology and Soil Sciences would be very useful.

As the subject is taught in English, it is assumed that the student has a basic to intermediate knowledge of the language in the 4 skills: listening, speaking, reading and writing.

2. Student Learning Outcomes

2.1 General outcomes

The General competences (G1 to G27) will be addressed on a global basis, and, particularly, efforts will be made to the compliance of:

G3 Be able to analyze and synthesize.

G4 To be capable of organizing and of planning.

G5 Be able to communicate effectively, orally and in writing, with both internal audiences.

G15 To show critical reasoning.

3. Objectives

Demonstrate knowledge of the main historical processes of the life on earth.

Demonstrate basic understanding of global climate.

Be familiar with the major vegetation types of the World.

Be familiar with important boreal, temperate and tropical trees.

To understand the dynamics of natural ecosystems, where they occur and its adaptations to environmental conditions.

To understand how major biomass have changed in the past and how they may change due to global environmental change.

To do basic bibliographic research and present scientific information on a forest product of a representative country.

Learnt to assess and analyze the work of a colleague student.

4. General Outline of Topics Covered: Contents

Block 1: "Introduction"

1. Earth History and Biogeography.
2. Global climate and vegetation.

Carga de trabajo en créditos ECTS: 2

Block 2: "World's biomes"

3. Tundra.
4. Alpine vegetation.
5. Boreal forests.

6. Temperate deciduous forest.
7. Temperate grasslands.
8. Mediterranean woodlands and shrublands.
9. Temperate rainforests.
10. Deserts: hot and cold deserts.
11. Tropical savannas.
12. Tropical forests.
13. Wetlands.

Carga de trabajo en créditos ECTS: 5.5

g Material docente

g.1 Basic Bibliography

Archibald, O.W. (1995) Ecology of World Vegetation. Chapman & Hall. London.

Shultz, J. (1995) The Ecozones of the World. The Ecological Divisions of the Geosphere. Springer. Berlin.

Walter, H. 1985. Vegetation of the Earth and Ecological Systems of the Geo-biosphere. Springer. Berlin.

g.2 Complementary bibliography

Lecture pdfs will be posted on the course website (Moodle).

g.3 Other sources (knowledge pills, blogs, videos, digital journals, massive courses (MOOC), …)

https://buc-uva.alma.exlibrisgroup.com/leganto/public/34BUC_UVA/lists/5132823200005774?auth=SAML&section=513282 4660005774

5. Teaching Methods

A combination of lecture based on flipped classes methodology and student active discussion are used in this course. Students will be encouraged to share thoughts and opinions. Participation and interaction with other students will be required.

6. Student dedication to the Course

In Class	Hours	Outside Class	Hours
Lectures	11.5	Study and personal work	34.5
Oral presentation	2	Preparation of oral presentation	18
Laboratorios (L)	5		
Seminarios (S)	4		
Total in class	**22.5**	**Total outside class**	**52.5**
		Total in class + outside class	**75**

7. Grading

INSTRUMENT	% of final grade	Details
Poster presentation	20	Mandatory - individual A rubric with grading details will be provided. Emphasis will be on information, layout and speaking.
Final Exam (Ordinary examination session)	80	Mandatory - individual Short questions, blank maps to draw the area of a biome, and climographs. Focus will be on understanding concepts.

Grading Criteria
Grade of final exam must be equal or greater than 5.0 to calculate the final grade.

• **Ordinary examination session:**
  ○ Final exam: questions covering all studied biomes, 80 % of final score.
• **Extra examination session (resit exam period):**
  ○ Final exam: questions covering all topics, 100% of final score.

(*) Se entiende por convocatoria extraordinaria la segunda convocatoria.
RECORDATORIO El estudiante debe poder puntuar sobre 10 en la convocatoria extraordinaria salvo en los casos especiales indicados en el Art 35.4 del ROA 35.4. "La participación en la convocatoria extraordinaria no quedará sujeta a la asistencia a clase ni a la presencia en pruebas anteriores, salvo en los casos de prácticas externas, laboratorios u otras actividades cuya evaluación no fuera posible sin la previa realización de las mencionadas pruebas."
https://secretariageneral.uva.es/wp-content/uploads/VII.2.-Reglamento-de-Ordenacion-Academica.pdf

8. Final considerations

Attendance:

- Lectures form a core component of this course. Students must ensure that they are available to attend lectures and to show up on time.

Technology in the classroom:

- Laptops are permitted in class, however, if they become a distraction the instructor may ask you to put them away.

Policy on Academic Ethics and Honesty:

The University of Valladolid (UVa) regards cheating as a serious academic offence. Anyone caught cheating will automatically receive a 0/10 for the quiz/exam/assignment, and will be reported to the dean. Your responsibility, besides maintaining a high standard of personal honesty, includes taking precautions to prevent others from copying your work. A student's assessed work may be reviewed against electronic source material using computerized detection mechanisms.

Instructor´s academic profile and CV:

Dra. María Isabel Pozo Romero, MsC, PhD.
Assistant Professor (subject coordinator, professor)

I have focused my research on the three-way interaction among plants, microbes and pollinators. My main research fields lay within chemical ecology, evolutionary ecology, ecology of microbial communities, pollen and nectar.
https://www.researchgate.net/profile/Maria-Pozo-13
https://scholar.google.com/citations?user=xEu4k40AAAAJ&hl=es.

Dr. Jaime Madrigal González, PhD.
Senior Postdoctoral Researcher

My research is rooted in the fields of plant ecology and vegetation ecology. Currently, I'm focused on plant-plant interactions and lichen-plant interactions on the one hand, and the relationship between distribution and functioning of shrubs and trees in the Mediterranean.
https://scholar.google.es/citations?user=puMpfaEAAAAJ&hl=es
https://www.researchgate.net/profile/Jaime-Madrigal-Gonzalez