

FICHA de la Asignatura

TITLE EFFECTS OF GLOBAL CHANGES ON NATURAL ECOSYSTEMS

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ECTS: 4,5 **Semester** 1

Description

This module is focused on the effects on natural ecosystems of global changes. Nowadays, the species and the ecosystems are seriously treated due to these effects. Global warming, ozone depletion and acid rain are the most important changes affecting the biosphere.

Aims

The aim of this module is to provide the student some notions about the main environmental problems and its effects on natural ecosystem.

Learning outcomes

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

- Appreciate the incalculable value of natural environment.
- Know the most important global changes affecting the natural ecosystems.
- Analyze the main environmental problems causes by global changes.
- To understand and to promote the possibility of the sustainable use of the natural resources.
- Aptitude to take action to managing in different types of ecosystems under different degrees of human intervention.

Syllabus indicative content

- Introduction to global process.
- Natural origin of global changes.
- Climate change: the effect of global warming and climate change on species and ecosystems.

- Ozone depletion: UV radiation and the protective ozone layer. The effect of UV radiation on species and ecosystems.
- Acid rain: The origin and consequences of acid rain on aquatic and terrestrial ecosystems.

Assessment

Coursework (weighting): 60%

Exam: 30%

Other activities (visit to research centres, practices, etc.): 10%

Reading list

Canadell, Josep G., Diane E. Pataki, Louis F. Pitelka. 2007. Terrestrial ecosystems in a changing world. 336 p. Springer, Berlin

Dolman A.J., A. Verhagen, C.A. Rovers. 2003. Global environmental change and land use. 210 p. Kluwer Academic Publishers, Boston.

Jacobson Michael C. [et al.]. 2003. Earth system science: from biogeochemical cycles to global change. 523 p. Academic Press, San Diego.

Global Change Biology. Journal of Wiley-Blackwell.

Culver Stephen J. and Peter F. Rawson. 2000. Biotic response to global: the last 145 million years. 501 p. Cambridge University Press, New York.