

## 66704 - Global change and management of natural risks

### Syllabus Information

**Academic year:** 2023/24

**Subject:** 66704 - Global change and management of natural risks

**Faculty / School:** 103 - Facultad de Filosofía y Letras

**Degree:** 328 - Master's in Land and Environmental Planning

**ECTS:** 6.0

**Year:** 1

**Semester:** Annual

**Subject type:** Optional

**Module:**

### 1. General information

The main objectives of the subject are:

- To know the variation of past and present climate.
- To assess the importance of anthropic intervention.
- To analyse the impact of weather and climate hazards on society and ecosystems.
- To acquire criteria for territorial management.

These approaches contribute to the following SDGs:

- Goal 3: Health and Well-Being (3.9).
- Goal 6: Clean Water and Sanitation (6.6).
- Goal 9: Industry, Innovation and Infrastructure (9.1).
- Goal 13: Climate Action (13.1, 13.2, 13.3, 13.b).
- Goal 15: Life of Terrestrial Ecosystems (15.1, 15.2, 15.3, 15.4, 15.5, 15.9).

### 2. Learning results

Upon completion of the subject the student will be able to:

- Know the temporal context of climate on Holocene and present-day scales.
- Know, select and knows how to use the main climate databases available to analyse the elements of climate and their implications on environmental risks.
- Identify the processes of the natural environment that originate the main environmental risks.
- Recognize the main future climate scenarios, and detect the causes that could cause them.

Establish risk mitigation measures appropriate to each situation, based on preventive management and integrated into land use planning

### 3. Syllabus

Thematic Block I: Global Change

- Topic 1. The Quaternary framework. Climatic changes of the past.
- Topic 2. The instrumental period.
- Topic 3. Scenarios of change and possible environmental repercussions.

Thematic Block II: Natural Hazards

- Topic 4. Types and management of risks.
- Topic 5. Climatic risks.
- Topic 6. Meteorological and hydrological risks.

### 4. Academic activities

The subject has an eminently practical orientation. The programmed activities include brief theoretical presentations by the teacher, combined with continuous practical work. The field work will be developed in a field trip.

1.A. Theoretical classes.

3.B. Computerized practices.

4- Field trip.

7- Personal study.

8- Assessment tests.

## **5. Assessment system**

### **Continuous assessment system**

- a. Oral presentation of practical group work (50%)
- b. Individual report of the group work (25%)
- c. Individual report of the field trip (25%).

General criteria for assessment:

- Clarity and cleanliness of the exposition.
- Good definition of objectives.
- Adequate management of sources and data.
- Clarity in the presentation of graphic, numerical, cartographic, etc. results.
- Proper management of terms and concepts.
- Drawing conclusions.

### **Global assessment test.**

The contents and assessment criteria of each test are the same as those expressed in the continuous assessment system.