

28307 - Climatology

Syllabus Information

Academic Year: 2022/23

Subject: 28307 - Climatology

Faculty / School: 103 - Facultad de Filosofía y Letras

Degree: 419 - Degree in Geography and Land Management

ECTS: 6.0

Year: 1

Semester: Second semester

Subject Type: Basic Education

Module:

1. General information

2. Learning goals

3. Assessment (1st and 2nd call)

4. Methodology, learning tasks, syllabus and resources

4.1. Methodological overview

The methodology followed in this course is oriented towards achievement of the learning objectives. A wide range of teaching and learning tasks are implemented, such as lectures, practical exercises, optional seminars, autonomous work and study.

Students are expected to participate actively in the class throughout the semester.

Classroom materials will be available via Moodle. These include a repository of the lecture notes used in class, the course syllabus, as well as other course-specific learning materials.

4.2. Learning tasks

The course includes the following learning tasks:

- Lectures (30 hours)
- Seminars (10 hours)
- Individual and/or group tasks (20 hours)
- Guided tasks (24 hours)
- Autonomous work and study (60 hours)
- Assessment tasks (6 hours)

4.3. Syllabus

The course will address the following topics:

1. Climate system and atmosphere
2. Budget radiation
3. Temperature and factors

4. Pressure and factors
5. Movement of air
6. Atmospheric humidity
7. Precipitation and factors
8. Air mass and perturbation
9. Climate of the world

Each topic lasts 3-4 hours as oral presentation and discussion, and 2 hours of practical assignments.

4.4. Course planning and calendar

Further information concerning the timetable, classroom, office hours, assessment dates and other details regarding this course will be provided on the first day of class or please refer to the 'Facultad de Filosofía y Letras' website (<https://fyl.unizar.es/horario-de-clases#overlay-context=horario-de-clases>)

4.5. Bibliography and recommended resources

Texts can vary, but in general are usually re-edited and uptodated

- **Main hand book** Aguado E, Burt J (2004). *Understanding weather and climate*. Prentice Hall. Excelente manual con un CD magnífico por la claridad de sus exposiciones. Barry R, Hall-McKim E (2014) *Essentials of the Earth's climate system*. Cambridge Univ. Press.

Chapter included in general Physical Geography hand book:

- Patton CP, Alexander CS, Kramer F (1978). *Physical Geography*.
- Strahler AN (1974). *Physical Geography*.
- McKnight TM and Hess D (2002) *Physical Geography. A landscape appreciation*. Prentice Hall.

An extensive web-site list is included in middle resources, and also specific references is given along the sessions.