

27008 - General Topology

Syllabus Information

Academic Year: 2021/22

Subject: 27008 - Topología general

Faculty / School: 100 - Facultad de Ciencias

Degree: 453 - Degree in Mathematics

ECTS: 9.0

Year: 2

Semester: Annual

Subject Type: Compulsory

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 the achievement of the learning objectives. A wide range of teaching and learning tasks are implemented, such as lectures, problem-solving sessions and autonomous work and study, and team work.

4.2. Learning tasks

This course is organized as follows:

- **Lectures.**
- **Problem-solving sessions.** Participatory problem-solving sessions.
- **Autonomous work and study.**
- **Team work.**

The teaching activities and assessment tasks will take place in a face-to-face mode, except in the case that, due to the health situation, the dispositions emitted by the competent authorities and by the University of Zaragoza compel to take them to a greater or lesser extent in a telematic form.

4.3. Syllabus

This course will address the following topics:

- **Topic 1. Topology in \mathbb{R}^n .**
- **Topic 2. Metric spaces.**
- **Topic 3. Position of a point relative to a subset**
- **Topic 4. Bases.**
- **Topic 5. Countable Axioms.**

- **Topic 6. Separation Axioms.**
- **Topic 7. Products and quotients.**
- **Topic 8. Compact spaces.**
- **Topic 9. Baire spaces.**
- **Topic 10. Connectivity.**

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 Faculty of Sciences website (<https://ciencias.unizar.es>) and Moodle.

4.5. Bibliography and recommended resources

- Dugundji, James. Topology / James Dugundji Boston : Allyn and Bacon, 1966.
- Higgins, P. J.. Introduction to topological groups / P. J. Higgins Cambridge : University Press, 1974.
- Munkres, James R. Topología / James R. Munkres; traducción, Ángel Ferrández Izquierdo ... [et al.] . - 2ª ed. Madrid : Prentice Hall, D.L. 2001.
- Willard, Stephen. General topology / Stephen Willard . - [1st. ed.] Reading, Massachusetts [etc.] : Addison-Wesley, cop. 1970.

<http://psfunizar10.unizar.es/br13/egAsignaturas.php?codigo=27008>