# uc3m Universidad Carlos III de Madrid

## Railways and Automobile

Review date: 08-07-2023 Academic Year: (2023 / 2024)

Department assigned to the subject: Mechanical Engineering Department

Coordinating teacher: DIAZ LOPEZ, VICENTE

Type: Electives ECTS Credits: 6.0

Year: 4 Semester: 2

## REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

Mecánica de Máquinas

#### **OBJECTIVES**

Know the fundamentals of road and rail transport.

Know the dynamics of a motor vehicle.

Know he dynamics of a railway.

Know the regulations of both sectors.

#### **DESCRIPTION OF CONTENTS: PROGRAMME**

- 1. Railway Track.
- 2. Types of vehicles. Running gear.
- 2. Retardation forces.
- 4. Traction and braking.
- 5. Lateral dynamics.

#### LEARNING ACTIVITIES AND METHODOLOGY

Lectures will be explained in big groups, exercises for understanding the lectures will be solved, labs will be carried out and a project in groups will also be done. In addition, 4 labs will be carried out.

# ASSESSMENT SYSTEM

To pass the course you must obtain a minimum score of 4 out of 10 in each of the parts, continuous assessment and

The execution of the practices will also be subject to evaluation and its completion is mandatory to pass the subject.

Percentage weight of the final exam: 50%

Percentage weight of the rest of the evaluation: 50%

% end-of-term-examination: 50

% of continuous assessment (assignments, laboratory, practicals...): 50