

# Course guide 240423 - 240PE026 - Formula Student M2

**Last modified:** 13/09/2023

**Unit in charge:** Barcelona School of Industrial Engineering **Teaching unit:** 709 - DEE - Department of Electrical Engineering.

Degree: MASTER'S DEGREE IN INDUSTRIAL ENGINEERING (Syllabus 2014). (Optional subject).

Academic year: 2023 ECTS Credits: 6.0 Languages: Catalan, Spanish

#### **LECTURER**

Coordinating lecturer: Arnau Dòria

Others: Lluís Roger, Daniel Montesinos, Vicenç Puig, Vicenç Parisi

## **TEACHING METHODOLOGY**

## **LEARNING OBJECTIVES OF THE SUBJECT**

General objective: To acquire and put into practice the necessary knowledge for the design and construction of a Formula Studenttype vehicle.

## Specific objectives:

To learn to plan, organize and develop the tasks of a project.

To acquire group work skills, responsibilities and leadership.

To develop effective oral and written communication skils.

To acquire knowledge related to automotive and mobility.

 $To \ contribute \ to \ reducing \ the \ gender \ gap \ in \ engineering, \ in \ general, \ and \ the \ automotive \ sector, \ in \ particular.$ 

To improve students' motivation and school success through participation in centre projects.

To consolidate more comprehensive training in engineering, with involvement in multidisciplinary projects.

## **CONTENTS**

## Training in automotive engineering

#### Description

New members will acquire knowledge related to the project section from the sessions with the reference faculty.

**Full-or-part-time:** 30h Guided activities: 5h Self study: 25h

## **Project planning**

#### Description:

The students, with the help of the reference teachers, will raise the team's objectives and the associated tasks.

**Full-or-part-time:** 30h Guided activities: 5h Self study: 25h

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## **Development of tasks**

## **Description:**

The students, with the help of the reference teaching staff, will develop the assigned tasks, with the corresponding validations to corroborate the proposed designs.

**Full-or-part-time:** 30h Guided activities: 5h Self study: 25h

## Assembly of the vehicle

## **Description:**

The students, with the help of the reference teachers, will carry out the necessary tasks to have a functional vehicle at the end of the season, and ready to participate in the competitions.

**Full-or-part-time:** 30h Guided activities: 5h Self study: 25h

## Preparation and participation in competitions

## **Description:**

The students will prepare the vehicle and participate in the competitions that are considered appropriate.

**Full-or-part-time:** 30h Guided activities: 5h Self study: 25h

## **GRADING SYSTEM**

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