Course guides
205054 - 205054 - Implementation and Testing of Metaheuristics for Optimization Problems

Last modified: 22/04/2021

Unit in charge: Terrassa School of Industrial, Aerospace and Audiovisual Engineering
Teaching unit: 732 - OE - Department of Management.

Degree: MASTER'S DEGREE IN INDUSTRIAL ENGINEERING (Syllabus 2013). (Optional subject).
MASTER'S DEGREE IN AERONAUTICAL ENGINEERING (Syllabus 2014). (Optional subject).
MASTER'S DEGREE IN SPACE AND AERONAUTICAL ENGINEERING (Syllabus 2016). (Optional subject).

Academic year: 2021 **ECTS Credits:** 3.0 **Languages:** English

LECTURER

Coordinating lecturer: Jose M Sallan

Others:

PRIOR SKILLS

It is strongly recommended to study the introduction to metaheuristics for optimization problems course to take this course.

TEACHING METHODOLOGY

Classes in computer room are proposed to teach students how to code metaheuristics. R language will be used to teach codes, but students can use the programming language of their choice.

LEARNING OBJECTIVES OF THE SUBJECT

STUDY LOAD

Type	Hours	Percentage
Self study	48,0	64.00
Hours large group	27,0	36.00

Total learning time: 75 h

CONTENTS

Module 1: Metaheuristics for optimization problems: a review

Description:
Metaheuristics for optimization problems: a review

Full-or-part-time: 15h
Theory classes: 6h
Self study : 9h

Module 2: Implementing algorithms: coding and testing

Description:
Implementing algorithms: coding and testing

Full-or-part-time: 45h
Theory classes: 15h
Self study : 30h

Module 3: Comparing metaheuristics

Description:
Comparing metaheuristics

Full-or-part-time: 15h
Theory classes: 6h
Self study : 9h

GRADING SYSTEM

The grade is obtained through three assignments, weighting 20% each, and with a final project with a weight of 40%.