

## 205054 - Implementation and Testing of Metaheuristics for Optimization Problems

Coordinating unit: 205 - ESEIAAT - Terrassa School of Industrial, Aerospace and Audiovisual Engineering  
 Teaching unit: 732 - OE - Department of Management  
 Academic year: 2019  
 Degree: MASTER'S DEGREE IN SPACE AND AERONAUTICAL ENGINEERING (Syllabus 2016). (Teaching unit Optional)  
 MASTER'S DEGREE IN INDUSTRIAL ENGINEERING (Syllabus 2013). (Teaching unit Optional)  
 MASTER'S DEGREE IN AERONAUTICAL ENGINEERING (Syllabus 2014). (Teaching unit Optional)  
 ECTS credits: 3 Teaching languages: English

### Teaching staff

Coordinator: Jose M Sallan

### 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

Total learning time: 75h	Hours large group:	27h	36.00%
	Hours medium group:	0h	0.00%
	Hours small group:	0h	0.00%
	Guided activities:	0h	0.00%
	Self study:	48h	64.00%

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### Content

Module 1: Metaheuristics for optimization problems: a review	Learning time: 15h Theory classes: 6h Self study : 9h
Description: Metaheuristics for optimization problems: a review	
Module 2: Implementing algorithms: coding and testing	Learning time: 45h Theory classes: 15h Self study : 30h
Description: Implementing algorithms: coding and testing	
Module 3: Comparing metaheuristics	Learning time: 15h Theory classes: 6h Self study : 9h
Description: Comparing metaheuristics	

### Qualification system

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

### Bibliography