

## Course guide

### 320030 - CP - Advanced Programming

Last modified: 02/04/2024

**Unit in charge:** Terrassa School of Industrial, Aerospace and Audiovisual Engineering  
**Teaching unit:** 723 - CS - Department of Computer Science.

**Degree:** BACHELOR'S DEGREE IN AUDIOVISUAL SYSTEMS ENGINEERING (Syllabus 2009). (Optional subject).  
BACHELOR'S DEGREE IN CHEMICAL ENGINEERING (Syllabus 2009). (Optional subject).  
BACHELOR'S DEGREE IN ELECTRICAL ENGINEERING (Syllabus 2009). (Optional subject).  
BACHELOR'S DEGREE IN INDUSTRIAL ELECTRONICS AND AUTOMATIC CONTROL ENGINEERING (Syllabus 2009). (Optional subject).  
BACHELOR'S DEGREE IN MECHANICAL ENGINEERING (Syllabus 2009). (Optional subject).  
BACHELOR'S DEGREE IN TEXTILE TECHNOLOGY AND DESIGN ENGINEERING (Syllabus 2009). (Optional subject).  
BACHELOR'S DEGREE IN INDUSTRIAL DESIGN AND PRODUCT DEVELOPMENT ENGINEERING (Syllabus 2010). (Optional subject).

**Academic year:** 2024    **ECTS Credits:** 6.0    **Languages:** Catalan, Spanish

#### LECTURER

**Coordinating lecturer:** Jordi Marco

**Others:** Pepa López

#### DEGREE COMPETENCES TO WHICH THE SUBJECT CONTRIBUTES

##### Transversal:

1. SELF-DIRECTED LEARNING - Level 3. Applying the knowledge gained in completing a task according to its relevance and importance. Deciding how to carry out a task, the amount of time to be devoted to it and the most suitable information sources.
2. EFFICIENT ORAL AND WRITTEN COMMUNICATION - Level 3. Communicating clearly and efficiently in oral and written presentations. Adapting to audiences and communication aims by using suitable strategies and means.
3. TEAMWORK - Level 3. Managing and making work groups effective. Resolving possible conflicts, valuing working with others, assessing the effectiveness of a team and presenting the final results.

#### TEACHING METHODOLOGY

#### LEARNING OBJECTIVES OF THE SUBJECT

#### STUDY LOAD

Type	Hours	Percentage
Hours small group	60,0	40.00
Self study	90,0	60.00

**Total learning time:** 150 h



## CONTENTS

---

### (ENG) Tema 1. Classes i Objectes

**Full-or-part-time:** 30h  
Laboratory classes: 12h  
Self study : 18h

### (ENG) Tema 2. Herència i Polimorfisme

**Full-or-part-time:** 42h  
Laboratory classes: 18h  
Self study : 24h

### (ENG) Tema 3. Programació visual

**Full-or-part-time:** 18h  
Laboratory classes: 6h  
Self study : 12h

### (ENG) Tema 4. Estructures de dades

**Full-or-part-time:** 60h  
Theory classes: 24h  
Self study : 36h

## GRADING SYSTEM

---

## BIBLIOGRAPHY

---

### Basic:

- Horstmann, C. S.; Cornell, G. Java 2. Vol 1, Fundamentos. Madrid: Prentice Hall, 2003. ISBN 8420537001.