# uc3m Universidad Carlos III de Madrid

#### Java programming

Academic Year: ( 2023 / 2024 ) Review date: 05-09-2023

Department assigned to the subject: Computer Science and Engineering Department

Coordinating teacher: GARCIA OLAYA, ANGEL Type: Additional training ECTS Credits: 3.0

Year: 1 Semester: 1

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

None

#### **OBJECTIVES**

To provide basic Java Object Oriented programming knowledge as required by other master's subjects

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

- 1. Introduction to Object Oriented Programming in Java
- 2. Project management with Java Enterprise
- 3. Memory management and functional programming in Java

#### LEARNING ACTIVITIES AND METHODOLOGY

#### LEARNING ACTIVITIES

AF1 Lectures [7 hours]

AF2 E-learning [11.5 hours]

AF3 Practical lectures [3.5 hours]

AF4 Lab classes [10 hours]

AF5 Tutorship [3.3 hours]

AF7 Students' autonomous work [40 hours]

#### **METHODOLOGY**

MD1: Teacher class presentations with computer and audiovisual support, in which the main course concepts are developed and bibliography is provided to supplement student learning.

MD2: Critical reading of papers provided by the professor: press articles, reports, manuals, or academic papers, either for class discussion or to extend student's knowledge.

MD3: Resolution of practical cases, problems, etc. posed by the teacher individually or in group

MD4: Expositions and class discussion under the moderation of teacher related to the course content and practical cases.

MD5: Reports elaboration individually or in group.

MD6: Specific e-learning activities, including viewing recorded content, self-correcting activities, participation in fora, and any other online teaching mechanism.

#### **TUTORSHIP**

Students can ask for individual online tutorship.

#### ASSESSMENT SYSTEM

The subject will be assessed as follows:

Individual or group work during the course: three practical exercises will be delivered according to the continuous evaluation schedule (50%). At least one of the three practical exercises will be evaluated face-to-face.

Final individual exam (50%)

% end-of-term-examination:	50
% of continuous assessment (assigments, laboratory, practicals):	50

## BASIC BIBLIOGRAPHY

- Bruce Eckel Piensa en Java / Think in Java, Pearson.