Object-oriented programmin

Academic Year: (2022 / 2023) **Review date: 16-05-2022**

Department assigned to the subject: Computer Science and Engineering Department

Coordinating teacher: GARCIA OLAYA, ANGEL

Type: Additional training ECTS Credits : 2.0

Year : 0 Semester : 1

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

None

OBJECTIVES

- Knowledge of fundamentals of imperative programming from an object oriented point of view.
- Basic knowledge of the syntax of an object oriented programming language.
- Knowledge of best programming practices and code style
- Ability to break down a real problem by following an object oriented methodology, in order to code it into a computer program.
- Ability to understand technical documents and to reuse third parties programming code and libraries.

DESCRIPTION OF CONTENTS: PROGRAMME

1. Introduction to Python
2. Flow control: conditionals and loops
3. Simple data structures
4. Functions
5. Object Oriented Programming

LEARNING ACTIVITIES AND METHODOLOGY

Teacher class presentations with computer and audiovisual support
E-learning
Lectures
Lab exercises
Tutorship
Work in groups
Individual and autonomous work
Final and partial exams

ASSESSMENT SYSTEM

Development of a software product following and object oriented approach and final exam.

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

BASIC BIBLIOGRAPHY

- Ana Bell Get Programming Learn to code with Python, Manning publications, 2018

- John S. Conery xplorations in Computing: An Introduction to Computer Science and Python Programming, CRC Press, 2014

BASIC ELECTRONIC RESOURCES

- Guido van Rossum, Barry Warsaw, Nick Coghlan . PEP 8 -- Style Guide for Python Code: https://www.python.org/dev/peps/pep-0008/
- Python Software Foundation . Python for Beginners: https://www.python.org/about/gettingstarted/