



## Course Syllabus

2018-19

### Course Description

Course	Computing
Code	202004
Faculty	School of Experimental Sciences
Degrees it is part of	Degree in Biotechnology
Module it belongs to	Physics, Mathematics and Computing for the Molecular Biosciences
Subject it belongs to	Computing
Department	Sports and Computing
Year	1 <sup>st</sup> year
Term	1 <sup>st</sup> term
Total credits	6
Type of course	Basic
Course language	Spanish
Teaching model	C1

Number of classroom teaching hours of C1 teaching model for each student: 23 hours of general teaching (background), 22 hours of theory-into-practice (practical group tutoring and skill development) and 0 hours of guided academic activities. Up to 10% of face-to-face sessions can be substituted by online teaching, in accordance with the course schedule published before it begins.

### Course Coordinator

Name	Ricardo León Talavera Llamas
Department	Sports and Computing
Field of knowledge	Computer Language and Systems
Category	Associate Professor
Office number	14.4.45
Phone	954977598
Webpage	
E-mail	<a href="mailto:rtallla@upo.es">rtallla@upo.es</a>

Name	Rubén Pérez Chacón
Department	Sports and Computing

Field of knowledge	Computer Language and Systems
Category	Associate Professor
Office number	14.4.45
Phone	954977598
Webpage	
E-mail	rpercha@upo.es

### Academic Context

Course description	The objective of the course is that the student understands the foundations of computing, design and code computing programs of simple application in a programming language and design medium complexity algorithms to solve computing programs.
Learning objectives	<p>The main objective is that the student acquires the following skills:</p> <ul style="list-style-type: none"> <li>- To manage the main computing tools to solve linear algebra, calculation and numerical methods problems.</li> <li>- To understand the foundations of computing, basic computer architecture, and the foundations of operative systems.</li> <li>- To manage Windows and Linux operative systems in basic calculations (manage file systems, process control, window manager, development environment).</li> <li>- To solve algorithms and programming problems.</li> <li>- To design and carry out an application program in a programming language in a small group.</li> <li>- To present orally the practice and projects results.</li> </ul>
Prerequisites	None
Recommendations	It is recommended that the student has basic knowledge of the use of usual operative systems (Windows or Linux).

### Course Content: Topics

<b>UNIT 1</b>	INTRODUCTION TO C (PROGRAMMING LANGUAGE)
<b>UNIT 2</b>	THE SELECTIVE CONTROL STATEMENT
<b>UNIT 3</b>	THE REPETITIVE CONTROL STATEMENT
<b>UNIT 4</b>	TABLES
<b>UNIT 5</b>	FUNCTIONS AND PROCEDURES
<b>UNIT 6</b>	CHARACTER SEQUENCES
<b>UNIT 7</b>	TEXT FILES

### Methodology and Resources

General teaching (EB <sup>1</sup> )	<ul style="list-style-type: none"> <li>- The theoretical concepts of the units will be presented through participatory sessions.</li> <li>- Exercises will be carried out individually or in groups.</li> </ul>
Theory-into-practice (EPD <sup>2</sup> )	<ul style="list-style-type: none"> <li>- Practice in computing classrooms will be done in these sessions.</li> <li>- Exercises will be carried out individually or in groups.</li> </ul>
Guided academic activities (AD)	Not applicable.

---

<sup>1</sup> EB is the acronym for Enseñanzas básicas.

<sup>2</sup> EPD is the acronym for Enseñanzas prácticas y de desarrollo.