

COURSE: Programming. 2020 – 2021		Teachers: José Antonio Iglesias \ Oscar Sipele	
DEGREE: Bachelor's Degree in Energy Engineering		YEAR: 1	TERM: 1

WEEKLY PLANNING											
WEEK	SESSION	TYPE (OL:OnLine F2F:Face-To-Face)	DAY	DESCRIPTION	GROUPS		2 Teachers Session	WEEKLY PROGRAMMING FOR STUDENT			
					LECTURES	COMPUTER LAB		DESCRIPTION	DELIVERIES / EXAMS	CLASS HOURS	HOMEWORK HOURS
1	1	F2F	17 Sept	<p><b>Course Overview:</b></p> <ul style="list-style-type: none"> <li>Presentation, programme, bibliography, tutorials, didactic materials, planning of the subject...</li> <li>Summary of the <b>UNIT 1</b> (Introduction to computer science and programming) and <b>UNIT 2</b> (Software and Hardware).</li> </ul> <p><b>Computer Lab Session (Unit 3):</b></p> <ul style="list-style-type: none"> <li>Programming Software (IDE)</li> </ul>		X	NO	<ul style="list-style-type: none"> <li>Reading Docent Guide</li> <li>Reading Chapter 14 (Prieto et al.)</li> <li>Reading Guide "How to study Unit 1 and 2".</li> </ul>		1,66	7
	2	OL	18 Sept	<p><b>UNIT 3. Basic elements of the C programming language (1/2).</b></p> <ul style="list-style-type: none"> <li>Programming Software (IDE)</li> <li>General structure of a program</li> <li>Variables and constants</li> <li>Weekly Practical Exercises - WE3.1</li> </ul>	X			<ul style="list-style-type: none"> <li>Exercises about simple C programs (Bibliography)</li> </ul>		1,66	

2	3	OL	24 Sept	<b>Computer Lab Session (Unit 3):</b> <ul style="list-style-type: none"> <li>Weekly Practical Exercises - WE3.2</li> </ul>		X		<ul style="list-style-type: none"> <li>Understand and complete all the proposed practical exercises.</li> </ul>	Exercises Unit 3 (WE 3.2)	1,66	7
	4	OL	25 Sept	<b>UNIT 3. Basic elements of the C programming language (2/2).</b> <ul style="list-style-type: none"> <li>Types of operators: arithmetic, relational, logic, operators.</li> <li>Operators, expressions, and instructions</li> <li>Input and output instructions.</li> </ul>	X		NO	<ul style="list-style-type: none"> <li>Reading of the corresponding chapters.</li> <li>Exercises about input and output instructions</li> </ul>	<i>kahoot</i>	1,66	
3	5	OL	1 Oct	<b>Computer Lab Session (Unit 4):</b> <ul style="list-style-type: none"> <li>Weekly Practical Exercises – WE4.1</li> </ul>		X	NO	<ul style="list-style-type: none"> <li>Understand and complete all the proposed practical exercises.</li> </ul>	Exercises Unit 4 (WE 4.1)	1,66	7
	6	OL	2 Oct	<b>UNIT 4. Control structures (1/3).</b> <ul style="list-style-type: none"> <li>Selection structures: if-else, switch</li> </ul>	X		NO	<ul style="list-style-type: none"> <li>Reading of the corresponding chapters.</li> <li>Exercises about selection structures</li> </ul>	<i>kahoot</i>	1,66	
4	7	OL	8 Sept	<b>Computer Lab Session (Unit 4):</b> <ul style="list-style-type: none"> <li>Weekly Practical Exercises – WE4.2</li> </ul>		X	NO	<ul style="list-style-type: none"> <li>Understand and complete all the proposed practical exercises.</li> </ul>	Exercises Unit 4 (WE 4.2)	1,66	7
	8	OL	9 Oct	<b>UNIT 4. Control structures (2/3).</b> <ul style="list-style-type: none"> <li>Repetition structures (loops): for</li> </ul>	X		NO	<ul style="list-style-type: none"> <li>Reading of the corresponding chapters.</li> <li>Exercises about control structures</li> </ul>	<i>kahoot</i>	1,66	
5	9	F2F	15 Oct	<b>Computer Lab Session (Unit 4):</b> <ul style="list-style-type: none"> <li>Weekly Practical Exercises – WE4.3</li> </ul> <b>Continuous Evaluation Exam</b>		X	NO	<ul style="list-style-type: none"> <li>Understand and complete all the proposed practical exercises.</li> </ul>	Exercises Unit 4 (WE 4.3)	1,66	7
	10	OL	16 Oct	<b>UNIT 4. Control structures (3/3).</b> <ul style="list-style-type: none"> <li>Repetition structures (loops): while, do-while</li> </ul>	X		NO	<ul style="list-style-type: none"> <li>Exercises about control structures</li> </ul>	<i>Kahoot</i>	1,66	

6	11	OL	22 Oct	<b>Computer Lab Session (Unit 5):</b> Weekly Practical Exercises – WE5.1		X	NO	<ul style="list-style-type: none"> <li>Understand and complete all the proposed practical exercises.</li> </ul>	Exercises Unit 5 (WE 5.1)	1,66	7
	12	OL	23 Oct	<b>UNIT 5. Subprograms (1/2)</b> <ul style="list-style-type: none"> <li>Definition.</li> <li>Modular programming.</li> </ul>	X		NO	<ul style="list-style-type: none"> <li>Reading of the corresponding chapters.</li> <li>Exercises about subprograms.</li> </ul>	<i>kahoot</i>	1,66	
7	13	OL	29 Oct	<b>Computer Lab Session (Unit 5):</b> <ul style="list-style-type: none"> <li>Weekly Practical Exercises – WE5.2</li> </ul>		X	YES	<ul style="list-style-type: none"> <li>Understand and complete all the proposed practical exercises.</li> </ul>	Exercises Unit 5 (WE 5.2)	1,66	7
	14	OL	30 Oct	<b>UNIT 5. Subprograms (2/2)</b> <ul style="list-style-type: none"> <li>Definition.</li> <li>Modular programming.</li> </ul>	X		NO	<ul style="list-style-type: none"> <li>Reading of the corresponding chapters.</li> <li>Exercises about subprograms.</li> </ul>	<i>kahoot</i>	1,66	
8	15	OL	5 Nov	<b>Computer Lab Session (Unit 5):</b> <ul style="list-style-type: none"> <li>Weekly Practical Exercises – WE5.3</li> </ul>		X	YES	<ul style="list-style-type: none"> <li>Understand and complete all the proposed practical exercises.</li> </ul>	Exercises Unit 5 (WE 5.3)	1,66	7
	15	OL	6 Nov	<b>UNIT 6. Structured data types (1/4)</b> <ul style="list-style-type: none"> <li>Structured vs simple data types</li> <li>Definition and use of arrays</li> <li>Pointers and arrays / Character strings</li> </ul>	X		NO	<ul style="list-style-type: none"> <li>Reading of the corresponding chapters.</li> <li>Exercises about subprograms.</li> </ul>	<i>kahoot</i>	1,66	
9	16	OL	12 Nov	<b>Computer Lab Session (Unit 6):</b> Weekly Practical Exercises – WE6.1		X	NO	<ul style="list-style-type: none"> <li>Understand and complete all the proposed practical exercises.</li> </ul>	Exercises Unit 6 (WE 6.1)	1,66	7
	17	OL	13 Nov	<b>UNIT 6. Structured data types (2/4)</b> <ul style="list-style-type: none"> <li>Structured vs simple data types</li> <li>Definition and use of arrays</li> <li>Pointers and arrays / Character strings</li> </ul>	X		NO	<ul style="list-style-type: none"> <li>Reading of the corresponding chapters.</li> <li>Exercises about arrays.</li> </ul>	<i>kahoot</i>	1,66	

10	18	OL	19 Nov	<b>Computer Lab Session (Unit 6):</b> <ul style="list-style-type: none"> <li>Weekly Practical Exercises – WE6.2 - MASTERCODE</li> </ul>			NO	<ul style="list-style-type: none"> <li>Understand and complete all the proposed practical exercises.</li> </ul>	Exercises Unit 6 (WE 6.2)	1,66	7
	19	OL	20 Nov	<b>UNIT 6. Structured data types (3/4)</b> <ul style="list-style-type: none"> <li>Structured vs simple data types</li> <li>Definition and use of arrays</li> <li>Pointers and arrays / Character strings</li> </ul>	X	X	NO	<ul style="list-style-type: none"> <li>Reading of the corresponding chapters.</li> <li>Exercises about arrays</li> </ul>	Kahoot	1,66	
11	20	F2F	26 Nov	<b>Computer Lab Session (Unit 6):</b> <ul style="list-style-type: none"> <li>Weekly Practical Exercises – WE6.3</li> </ul> Continuous Evaluation Exam			YES	<ul style="list-style-type: none"> <li>Understand and complete all the proposed practical exercises.</li> </ul>	Exercises Unit 6 (WE 6.3)	1,66	7
	21	OL	27 Nov	<b>UNIT 6. Structured data types (4/4)</b> <ul style="list-style-type: none"> <li>Structured vs simple data types</li> <li>Definition and use of arrays</li> <li>Pointers and arrays / Character strings</li> </ul>	X	X	NO	<ul style="list-style-type: none"> <li>Reading of the corresponding chapters.</li> <li>Exercises about arrays</li> </ul>	Kahoot	1,66	
12	22	OL	2 Dic	<b>Computer Lab Session (Unit 7):</b> Weekly Practical Exercises – WE7.1			YES	<ul style="list-style-type: none"> <li>Understand and complete all the proposed practical exercises.</li> </ul>	Exercises Unit 7 (WE 7.1)	1,66	7
	23	OL	4 Dic	<b>UNIT 7. Search, sort and merge algorithms</b> <ul style="list-style-type: none"> <li>Search algorithms</li> <li>Sort algorithms</li> </ul>	X	X	NO	<ul style="list-style-type: none"> <li>Reading of the corresponding chapters.</li> <li>Exercises about arrays.</li> </ul>	Kahoot	1,66	
13	24	OL	10 Dic	<b>Computer Lab Session (Unit 7):</b> <ul style="list-style-type: none"> <li>Exercises final Project</li> </ul>			NO	<ul style="list-style-type: none"> <li>Understand and complete all the proposed practical exercises.</li> </ul>		1,66	7
	25	OL	11 Dic	<ul style="list-style-type: none"> <li>Exercises Final Exam / Final Project</li> </ul>	X	X	NO	<ul style="list-style-type: none"> <li>Reading of the corresponding chapters in the proposed literature.</li> <li>Exercises about arrays (Bibliography)</li> </ul>	Kahoot Final Project 1.3	1,66	

14	26	F2F	17 Dec	COMPUTER LAB EXAM			NO	• Computer Lab Exam - Study		1,66	7	
	27	OL	18 Dec	Computer Lab Session (Unit 7): MASTERCODE	X	X	NO	• Understand and complete all the proposed practical exercises.		1,66		
15	28	OL	21 Dec	Tutorials for the exam (if needed).						1,66	7	
										Subtotal 1	46,5	105
										Class Hours + Homework hours. Weeks 1 -16		<b>151,5</b>