



COURSE: Systems Programming		
BACHELOR'S DEGREE IN: Mobile and Space Communication Engineering /Sound and Image Engineering / Telematics Engineering / Telecommunication Technologies Engineering	YEAR: 1	TERM: 2

La asignatura tiene 29 sesiones que se distribuyen a lo largo de 14 semanas. Los laboratorios pueden situarse en cualquiera de ellas. Semanalmente el alumnos tendrá dos sesiones, excepto en un caso que serán tres

WEEKLY PLANNING									
WEEK	SESSION	DESCRIPTION	GROUPS (mark X)		SPECIAL ROOM FOR SESSION (Computer class room, audiovisual class room)	Indicate YES/NO If the session needs 2 teachers	WEEKLY PROGRAMMING FOR STUDENT		
			LECTURES	SEMINARS			DESCRIPTION	CLASS HOURS	HOMEWORK HOURS (Max. 7h week)
1	1	Introduction and recap Course presentation (syllabus, methodology, evaluation, etc.). Installation and configuration of the programming environment Recap of basic programming concepts	X		Virtual Room	No	Study of the concepts covered in class, Review and develop reference material related with this session Solving some questions or exercises related with this session	1,66	6
1	2	Recap exercises Using the Integrated Development Environment Using the debugger Recap exercises		X	Remote Lab	No	Recap exercises Installing the development environment for personal computers Practice using the debugger.	1,66	
2	3	Object orientation and inheritance Definitions: Classes and Objects Composition & Inheritance	X		Virtual Room	No	Study of the concepts covered in class, Review and develop reference material related with this session	1,66	6

							Solving some questions or exercises related with this session		
2	4	Exercises about Object orientation and Inheritance		X	Remote Lab	No	Exercises about Object orientation and Inheritance	1,66	
3	5	Object orientation and inheritance Overwriting and overloading Shadowing Modifiers Constructors	X		Virtual Room	No	Study of the concepts covered in class, Review and develop reference material related with this session Solving some questions or exercises related with this session	1,66	6
3	6	Exercises about Object orientation and inheritance		X	Remote Lab	No	Exercises about Object orientation and Inheritance	1,66	
4	7	Object orientation and Interfaces Abstract clases Interfaces Polymorphims	X		Virtual Room	No	Study of the concepts covered in class, Review and develop reference material related with this session Solving some questions or exercises related with this session	1,66	6
4	8	Exercises about Object orientation and Interfaces		X	Remote Lab	No	Exercises about object orientation and interfaces	1,66	
5	9	Recursion Definition Types Implementation and execution examples	X		Virtual Room	No	Study of the concepts covered in class, Review and develop reference material related with this session Solving some questions or exercises related with this session	1,66	6
5	10	Exercises about Recursion		X	Remote Lab	No	Exercises about Recursion	1,66	
6	11	Testing	X		Virtual Room	No	Study of the concepts covered in class, Review and develop reference material related with this session Solving some questions or exercises related with this session	1,66	6
6	12	Exercises about Testing		X	Remote Lab	No	Exercises about Testing	1,66	
7	13	Linked Lists and Double LinkedLists Definition Types Implementation Examples Basic operations and algorithms (insert, delete, search)	X		Virtual Room	No	Study of the concepts covered in class, Review and develop reference material related with this session Solving some questions or exercises related with this session	1,66	6
7	14	Exercises about LinkedLists and Double LinkedLists		X	Lecture Hall (* Remote Lab)	Yes	Exercises about LinkedLists and Double LinkedLists	1,66	
8	15	Recap	X		Virtual Room	No	Review and develop reference material related with previous sessions Solving some questions or exercises related with previous sessions	1,66	7
8	16	Midterm Exam I (Theory and problems)		X	Lecture Hall (* Remote Lab)	Yes	Complete review of all didactical units studied to date: Study of the concepts covered in previous classes,	1,66	

							Review and develop reference material related with previous sessions Solving some questions or exercises related with previous sessions		
9	17	Stacks and Queues Definition Types Implementation Examples Basic operations and algorithms (insert, delete)	X		Virtual Room	No	Study of the concepts covered in class, Review and develop reference material related with this session Solving some questions or exercises related with this session	1,66	6
9	18	Exercises about stacks and queues		X	Remote Lab	No	Exercises about Stacks and Queues	1,66	
10	19	Trees I Definition Properties Examples of use and implementation Algorithms (preorder, postorder, inorder) Binary Trees	X		Virtual Room	No	Study of the concepts covered in class, Review and develop reference material related with this session Solving some questions or exercises related with this session	1,66	6
10	20	Exercises about Trees		X	Remote Lab	No	Exercises about Trees	1,66	
11	21	Trees II Binary Search Trees Examples of use and implementation Basic operations (insert, delete, search) Heaps Examples of use and implementation Basic operations (insert, delete, search)	X		Virtual Room	No	Study of the concepts covered in class, Review and develop reference material related with this session Solving some questions or exercises related with this session	1,66	6
11	22	Exercises about Trees & heaps		X	Remote Lab	No	Exercises about Trees	1,66	
12	23	Searching and Sorting Algorithms I	X		Virtual Room	No	Study of the concepts covered in class, Review and develop reference material related with this session Solving some questions or exercises related with this session	1,66	6
12	24	Exercises about Searching and Sorting Algorithms I		X	Remote Lab	No	Exercises about Searching and Sorting Algorithms	1,66	
13	25	Searching and Sorting Algorithms II	X		Virtual Room	No	Study of the concepts covered in class, Review and develop reference material related with this session Solving some questions or exercises related with this session	1,66	6
13	26	Exercises about Searching and Sorting Algorithms II		X	Lecture Hall (* Remote Lab)	No	Exercises about Searching and Sorting Algorithms	1,66	
14	27	Recap	X		Virtual Room	No	Review and develop reference material since previous midterm exam. Solving some questions or exercises related with previous sessions	1,66	7
14	28	Midterm Exam II (Theory and Problems)		X	Lecture Hall (* Remote Lab)	Yes	Complete review of all didactical units studied since previous midterm exam:	1,66	

							Study of the concepts covered in previous classes Review and develop reference material related with previous sessions Solving some questions or exercises related with previous sessions		
8	29	Recap		X	Lecture Hall (* Remote Lab)	Yes	Solving some questions or exercises related with previous sessions	1,66	1

Subtotal 1 48,33

Total 1 (Hours of class plus student homework hours between weeks 11-14)

15		Tutorials, handing in, etc						7	
16		Assessment						3	14
17									
18									

Subtotal 2 3 21

Total 2 (Hours of class plus student homework hours between weeks 15-18)

TOTAL (Total 1 + Total 2. Maximum 180 hours)								159,33
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(*Remote Lab) Only in case of special measures