



COURSE: ADVANCED THEORY OF COMPUTATION

DEGREE: BACHELOR'S DEGREE IN INFORMATICS ENGINEERING

YEAR: 4

TERM: SECOND

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, audio-visual 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	Course Overview Cost of Computation. Computational Complexity	X			NO	Reading of Syllabus. Self-Study & Text Book	1,6	5
1	2	Cost of Computation. Computational Complexity Complexity of recursive algorithms		X		NO	Self-Study & Text Books	1,6	
2	3	Cost of Computation. Computational Complexity Complexity of recursive algorithms	X			NO	Self-Study & Text Books	1,6	5
2	4	Introduction to projects/essays and practical work. Practical Work: Algorithm Complexity		X	Computer class room	NO	Self-Study & Text Books. Practical Work wording	1,6	

3	5	Introduction to the Theory of Computation	X			NO	Self-Study & Text Books.	1,6	5
3	6	Practical Work: Algorithm Complexity		X	Computer class room	NO	Self-Study & Text Books. Problems	1,6	
4	7	Introduction to the Theory of Computation. Problems, and Problem Complexity	X			NO	Self-Study & Text Books.	1,6	5
4	8	Practical Work: Algorithm Complexity		X	Computer class room	NO	Practical Work Assessment	1,6	
5	9		X			NO		1,6	5
5	10	Practical Work: Algorithm Complexity Project/Essay		X	Computer class room	NO	Practical Work Assessment. Initial project proposal	1,6	
6	11		X			NO		1,6	7
6	12	Due Date Practical Work Assessment		X	Computer class room	NO	Practical Work Assessment	1,6	
7	13	Relation Between Problems	X			NO	Self-Study & Text Books.	1,6	5
7	14	Class of Problems (P, NP, NPC, etc.)		X		NO	Self-Study & Text Books.	1,6	
8	15	Approximation Algorithms, Probabilistic Algorithms Metaheuristics	X			NO	Self-Study & Text Books.	1,6	5
8	16	Project/Essay		X	Computer class room	NO	Work for Project/essay	1,6	
9	17	Assessment. Test/Short Answers Markov Complexity. TM: Busy Beaver	X			NO	Self-Study & Text Books	1,6	5
9	18	Project/Essay		X	Computer class room	NO	Work for Project/essay	1,6	
10	19	Models Of Computation	X			NO	Self-Study & Text Books	1,6	5
10	20	Project/Essay		X	Computer class room	NO	Work for Project/essay	1,6	
11	21	Models Of Computation	X			NO	Self-Study & Text Books	1,6	5
11	22	Models Of Computation		X		NO	Self-Study & Text Books	1,6	

12	23	Project/Essay	X		Computer class room	NO	Work for Project/essay	1,6	7
12	24	Project/Essay		X	Computer class room	NO	Work for Project/essay	1,6	
13	25	Due Date Project/Essay Assessment	X		Computer class room	NO	Work for Project/essay	1,6	5
13	26	Project/Essay Exposition		X		NO	Work for Project/essay Presentation. Self-Study & Text Books	1,6	
14	27	Project/Essay Exposition	X			NO	Work for Project/essay Presentation. Self-Study & Text Books	1,6	5
14	28	Project/Essay Exposition		X		NO	Work for Project/essay Presentation. Self-Study & Text Books	1,6	
	29	Project/Essay Exposition		X		NO	Work for Project/essay Presentation. Self-Study & Text Books	1,6	
Subtotal 1								48,33	
Total 1 (Hours of class plus student homework hours between weeks 1-14)								122	

15		Tutorials, handing in, etc							
16		Assessment						3	20
17									
18									
Subtotal 2								3	
Total 2 (Hours of class plus student homework hours between weeks 15-18)								23	

TOTAL (Total 1 + Total 2. Maximum 180 hours)								145	
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