



<b>DENOMINACIÓN ASIGNATURA: DISCRETE MATHEMATICS</b>		
<b>BACHELOR DEGREE: APPLIED MATHEMATICS AND COMPUTING</b>	<b>YEAR: FIRST</b>	<b>TERM: SECOND</b>

<b>CRONOGRAMME</b>									
WEEK	SE- SSI ON	DESCRIPTION OF THE CONTENT OF EACH SESSION	GRUPO (Marcar X)		Indicate if an additional room is required (e.g. laboratory)	Indicate with Yes/No If the session involves 2 teachers	STUDENT'S WORK DURING THE WEEK		
			THEO RY GROU P	PROBL EM GROU P			DESCRIPTION OF THE MATERIAL TO BE STUDIED (Basic Reference: <i>Rosen's</i> textbook; collection of exercises distributed at the beginning of the course)	HOURS OF LECTURE S	STUDENTS WORK (MAX. 7 HOURS)
BASIC 1	1	BASIC COUNTING RULES	X			NO	SECTIONS 6.1, 6.2 & 8.5 OF ROSEN	1,5	6,5
1	2	DISCUSSION & SOLUTION OF EXERCISES		X		NO	EXERCISES CHAPTER 1	1,5	
2	3	PERMUTATIONS & COMBINATIONS	X			NO	SECTIONS 6.3 & 6.4 OF ROSEN	1,5	6,5
2	4	DISCUSSION & SOLUTION OF EXERCISES		X		NO	EXERCISES CHAPTER 1	1,5	
3	5	PERMUTATIONS AND COMBINATIONS WITH REPETITION	X			NO	SECTION 6.5 OF ROSEN	1,5	6,5
3	6	DISCUSSION & SOLUTION OF EXERCISES		X		NO	EXERCISES CHAPTER 1	1,5	
4	7	RECURSION: BASIC PROPERTIES	X			NO	SECTIONS 5.1, 5.2 & 5.3 + SECTION 8.1 OF ROSEN	1,5	6,5
4	8	DISCUSSION & SOLUTION OF EXERCISES		X		NO	EXERCISES CHAPTER 1	1,5	
5	9	LINEAR RECURRENCE RELATIONS	X			NO	SECTION 8.2 OF ROSEN	1,5	6,5

5	10	DISCUSSION & SOLUTION OF EXERCISES		X		NO	EXERCISES CHAPTER 2	1,5	
		<b>1<sup>ST</sup> PARTIAL TEST</b>							
6	11	TIME COMPLEXITY OF DIVIDE-AND-CONQUER ALGORITHMS	X			NO	SECTION 8.3 OF ROSEN	1,5	6,5
6	12	DISCUSSION & SOLUTION OF EXERCISES		X		NO	EXERCISES CHAPTER 2	1,5	
7	13	BINARY RELATIONS: BASIC PROPERTIES	X			NO	SECTIONS 9.1, 9.2 & 9.3 OF ROSEN	1,5	6,5
7	14	DISCUSSION & SOLUTION OF EXERCISES		X		NO	EXERCISES CHAPTER 2	1,5	
8	15	PARTIAL ORDERS (I)	X			NO	SECTION 9.6 OF ROSEN	1,5	6,5
8	16	DISCUSSION & SOLUTION OF EXERCISES		X		NO	EXERCISES CHAPTER 3	1,5	
9	17	PARTIAL ORDERS (II) + EQUIVALENCE RELATIONS	X			NO	SECTION 9.6 & 9.5 OF ROSEN	1,5	6,5
9	18	DISCUSSION & SOLUTION OF EXERCISES		X		NO	EXERCISES CHAPTER 3	1,5	
10	19	GRAPHS: BASIC DEFINITIONS AND CONCEPTS (I) UNDIRECTED GRAPHS	X			NO	SECTIONS 10.1, 10.2 & 10.3 OF ROSEN	1,5	6,5
10	20	DISCUSSION & SOLUTION OF EXERCISES		X		NO	EXERCISES CHAPTER 3	1,5	
11	21	GRAPHS: BASIC DEFINITIONS AND CONCEPTS (II) + + EULER & HAMILTON PATHS	X			NO	SECTION 10.5 OF ROSEN	1,5	6,5
11	22	DISCUSSION & SOLUTION OF EXERCISES		X		NO	EXERCISES CHAPTER 4	1,5	
		<b>2<sup>ND</sup> PARTIAL TEST</b>							
12	23	DIRECTED GRAPHS & CONNECTIVITY	X			NO	SECTION 10.4 OF ROSEN	1,5	6,5
12	24	DISCUSSION & SOLUTION OF EXERCISES		X		NO	EXERCISES CHAPTER 4	1,5	
13	25	WEIGHTED GRAPHS & SHORTEST PATH PROBLEMS	X			NO	SECTION 10.6 OF ROSEN	1,5	6,5
13	26	DISCUSSION & SOLUTION OF EXERCISES		X		NO	EXERCISES CHAPTER 4	1,5	

14	27	TREES	X			NO	CHAPTER 11 OF ROSEN	1,5	6,5
14	28	DISCUSSION & SOLUTION OF EXERCISES		X		NO	EXERCISES CHAPTER 4	1,5	
<b>SUBTOTAL</b>								<b>42</b>	<b>+ 91 = 133</b>
15		TUTORIALS AND PREPARATION FOR EXAMS	X					1	6
16-18		TUTORIALS AND PREPARATION FOR EXAMS						3	7
<b>TOTAL</b>								<b>150</b>	