



COURSE: ADVANCED MATHEMATICS		
DEGREE: BACHELOR IN COMMUNICATION SYSTEM ENGINEERING	YEAR: 2	TERM: 1

WEEKLY PLANNING									
WEEK	SESSION	DESCRIPTION	GROUPS (mark X)		Special room for session (computer classroom, audio-visual classroom...)	WEEKLY PROGRAMMING FOR STUDENT			
			LECTURES	SEMINARS		DESCRIPTION	CLASS HOURS	HOMEWORK HOURS (Max. 7h week)	
1	1	PRESENTATION OF THE COURSE. CHAPTER 1: INTRODUCTION TO COMPLEX COMPLEX NUMBERS AND OPERATIONS WITH THEM, POLAR EXPRESSION	X			NO	READ SECTIONS 1.1, 1.2, 1.3 FROM TEXTBOOK "CURSO DE VARIABLE COMPLEJA" BY N. LEVINSON AND R. REDHEFFER, [LR]. READ CHAPTER 1 FROM TEXTBOOK "VARIABLE COMPLEJA, UN CURSO PRÁCTICO" BY D. PESTANA, J.M. RODRÍGUEZ AND F. MARCELLÁN, [PRM].	1,66	6,5
1	2	DISCUSSION OF EXERCISES ON PAGE 1.1.		X		NO	SOLVE EXERCISES FROM PAGE 1.1.	1,66	

2	3	HOLOMORPHIC FUNCTIONS. CAUCHY-RIEMANN EQUATIONS.	X			NO	READ SECTIONS 1.4, 1.5, 2.1, 2.5 FROM [LR]. READ CHAPTER 2 FROM [PRM].	1,66	6,5
2	4	DISCUSSION OF EXERCISES ON PAGE 1.2.		X		NO	SOLVE EXERCISES FROM PAGE 1.2.	1,66	
3	5	TAYLOR SERIES AND RADIUS OF CONVERGENCE	X			NO	READ SECTIONS 6.1, 6.2, 6.3 FROM [LR]. READ CHAPTER 3 FROM [PRM].	1,66	6,5
3	6	DISCUSSION OF EXERCISES ON PAGE 1.3.		X		NO	SOLVE EXERCISES FROM PAGE 1.3.	1,66	
4	7	ELEMENTARY FUNCTIONS.	X			NO	READ SECTIONS 2.2, 2.3 FROM [LR]. READ CHAPTER 3 FROM [PRM].	1,66	6,5
4	8	DISCUSSION OF EXERCISES ON PAGE 1.3.		X		NO	SOLVE EXERCISES FROM PAGE 1.3.	1,66	
5	9	COMPLEX INTEGRATION	X			NO	READ SECTIONS 3.1, 3.2 FROM [LR]. READ CHAPTER 4 FROM [PRM].	1,66	6,5
5	10	DISCUSSION OF EXERCISES ON PAGE 1.4.		X		NO	SOLVE EXERCISES FROM PAGE 1.4.	1,66	
6	11	CAUCHY INTEGRAL FORMULA.	X			NO	READ SECTIONS 3.3, 3.4, 3.5 FROM [LR]. READ CHAPTER 5 FROM [PRM].	1,66	6,5
6	12	DISCUSSION OF EXERCISES ON PAGE 1.4.		X		NO	SOLVE EXERCISES FROM PAGE 1.4.	1,66	
7	13	LAURENT SERIES AND RESIDUES.	X			NO	READ SECTIONS 3.8, 3.9, 3.10 FROM [LR]. READ CHAPTER 6 FROM [PRM].	1,66	6,5

7	14	DISCUSSION OF EXERCISES ON PAGE 1.5.		X		NO	SOLVE EXERCISES FROM PAGE 1.5.	1,66	
8	15	RESIDUE THEOREM. TEST 1.	X			NO	READ SECTIONS 4.2, 4.3, 4.9 FROM [LR]. READ CHAPTER 7 FROM [PRM].	1,66	6,5
8	16	DISCUSSION OF EXERCISES ON PAGE 1.6.		X		NO	SOLVE EXERCISES FROM PAGE 1.6.	1,66	
9	17	APLICACIONES OF THE RESIDUE THEOREM.	X			NO	READ SECTIONS 4.4 FROM [LR]. READ CHAPTER 7 FROM [PRM].	1,66	6,5
9	18	DISCUSSION OF EXERCISES ON PAGE 1.6.		X		NO	SOLVE EXERCISES FROM PAGE 1.6.	1,66	
10	19	CHAPTER 2: ORDINARY DIFFERENTIAL EQUATIONS. ELEMENTARY METHODS OF SOLUTION. SEPARABLE VARIABLES, HOMOGENEOUS EQUATIONS, EXACT DIFFERENTIALS.	X			NO	READ SECTIONS 1.1, 1.2, 1.3, 1.5, 1.7 FROM TEXTBOOK "ECUACIONES DIFERENCIALES" BY G. SIMMONS AND S. KRANTZ, [SK].	1,66	6,5
10	20	DISCUSSION OF EXERCISES ON PAGE 2.1.		X		NO	SOLVE EXERCISES FROM PAGE 2.1.	1,66	
11	21	INTEGRATING FACTORS, LINEAR EQUATIONS, BERNOULLI EQUATIONS.	X			NO	READ SECTIONS 1.4, 1.6, 1.8, 1.9 FROM [SK].	1,66	6,5
11	22	DISCUSIÓN OF EXERCISES ON PAGE 2.1.		X		NO	SOLVE EXERCISES FROM PAGE 2.1.	1,66	
12	23	LINEAR EQUATIONS OF HIGHER ORDER.	X			NO	READ SECTIONS 2.1, 2.2, 2.3, 2.4 FROM [SK].	1,66	6,5

12	24	DISCUSSION OF EXERCISES ON PAGE 2.2.		X		NO	SOLVE EXERCISES FROM PAGE 2.2.	1,66	
13	25	PROPERTIES OF THE LAPLACE TRANSFORM.	X			NO	READ SECTIONS 7.1, 7.2 FROM [SK].	1,66	6,5
13	26	DISCUSSION OF EXERCISES ON PAGE 2.3.		X		NO	SOLVE EXERCISES FROM PAGE 2.3.	1,66	
14	27	APPLICATIONS OF THE LAPLACE TRANSFORM.	X			NO	READ SECTIONS 7.3, 7.5 FROM [SK].	1,66	6,5
14	28	DISCUSSION OF EXERCISES ON PAGE 2.3.		X		NO	SOLVE EXERCISES FROM PAGE 2.3.	1,66	
	29	OVERVIEW	X			NO		1,66	

Subtotal 1 **48,33** **91**

Total 1 (Horas presenciales y de trabajo del alumno entre las semanas 1-14)	139,33
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15		TEST 2. TUTORIALS, HAND IN OF EXTRA CREDIT WORK	X			NO		2	6
16		PREPARATION FOR FINAL EXAM AND EVALUATION.						3	6
17									
18									

Subtotal 2 **5** **12**

Total 2 (Horas presenciales y de trabajo del alumno entre las semanas 15-18)	17
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TOTAL (Total 1 + Total 2)	156,33
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