uc3m | Universidad Carlos III de Madrid
Vicerrectorado de Estudios
Apoyo a la docencia y gestión del grado

COURSE: CALCULUS II		
DEGREE: INDUSTRIAL TECHNOLOGIES ENGINEERING	YEAR: FIRST	TERM: SECOND

WEEKLY PLANNING

WEEK	SESSION	DESCRIPTION	TEACHING (mark X)		SPECIAL ROOM FOR SESSION (Computer class room, audio-visual class room)	WEEKLY PROGRAMMING FOR STUDENT		
			LECTURES	SEMINARS		DESCRIPTION	CLASS HOURS (1,66=50+50 min)	HOMEWORK HOURS (Max. Estim. 6,5h)
1	1	CHAPTER I: THE R^N SPACE, TOPOLOGICAL STRUCTURE, MULTIVARIATE FUNCTIONS: LEVEL SETS	X				1,66	6,5
	2	DISCUSSION AND SOLUTION OF PROBLEMS		X			1,66	
2	3	LIMITS AND CONTINUITY OF MULTIVARIATE FUNCTIONS	X				1,66	6,5
	4	DISCUSSION AND RESOLUTION OF PROBLEMS		X			1,66	
3	5	DIFFERENTIABILITY AND PARTIAL DERIVATIVES, JACOBIAN MATRIX AND GRADIENT VECTOR	X				1,66	6,5
	6	DISCUSSION AND RESOLUTION OF PROBLEMS		X			1,66	
4	7	CHAIN RULE, DIRECTIONAL DERIVATIVES, DIFFERENTIAL OPERATORS	X				1,66	6,5
	8	DISCUSSION AND RESOLUTION OF PROBLEMS		X			1,66	
5	9	CHAPTER II: HESSIAN MATRIX, LOCAL EXTREMA	X				1,66	6,5
	10	DISCUSSION AND RESOLUTION OF PROBLEMS		X			1,66	
6	11	CONSTRAINED EXTREMA, LAGRANGE MULTIPLIERS, GLOBAL EXTREMA	X				1,66	6,5
	12	DISCUSSION AND RESOLUTION OF PROBLEMS		X			1,66	

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7	13	CHAPTER III: INTEGRALS ON R^N. FIRST PARTIAL EVALUATION	X				1,66	6,5
	14	DISCUSSION AND RESOLUTION OF PROBLEMS		X			1,66	
8	15	ITERATIVE INTEGRATION, FUBINI'S THEOREM, APPLICATIONS	X				1,66	6,5
	16	DISCUSSION AND RESOLUTION OF PROBLEMS		X			1,66	
9	17	CHANGE OF VARIABLES, POLAR, CYLINDRICAL AND SPHERICAL COORDINATES	X				1,66	6,5
	18	DISCUSSION AND RESOLUTION OF PROBLEMS		X			1,66	
10	19	APPLICATIONS OF THE INTEGRAL	X				1,66	6,5
	20	DISCUSSION AND RESOLUTION OF PROBLEMS		X			1,66	
11	21	CHAPTER IV: LINE INTEGRALS, CONSERVATIVE FIELDS	X				1,66	6,5
	22	DISCUSSION AND RESOLUTION OF PROBLEMS		X			1,66	
12	23	SURFACE INTEGRALS	X				1,66	6,5
	24	DISCUSSION AND RESOLUTION OF PROBLEMS		X			1,66	
13	25	GREEN THEOREM	X				1,66	6,5
	26	DISCUSSION AND RESOLUTION OF PROBLEMS		X			1,66	
14	27	GAUSS AND STOKES THEOREMS	X				1,66	6,5
	28	DISCUSSION AND RESOLUTION OF PROBLEMS		X			1,66	
	29	Additional session. SECOND PARTIAL EVALUATION	X				1,66	3,25
						Subtotal 1	**48**	**94**
						Total 1 *(Hours of class plus student homework)*	**142**	
15		Tutorials, handing in, etc	X				3,6	-
16 17		Assessment					4	10

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18								
						Subtotal 2	**8**	**10**
						Total 2 *(Hours of class plus student homework)*	**18**	
TOTAL (*Maximun 160 horas*)							**160**	