

COURSE: CALCULUS II		
DEGREE: MECHANICAL 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		
			L E C T U R E S	S E M I N A R S		DESCRIPTION	CLASS HOURS (1,66=50+50 min)	HOMEWORK HOURS (Max. Estim. 6,5h)
1	1	THE R ⁿ N SPACE, FUNCTIONS ON SOME VARIABLES, LEVEL SETS, ITRODUCTION TO THE CONCEPT OF LIMIT	X				1,66	6,5
	2	DISCUSSION AND SOLUTION OF PROBLEMS		X			1,66	
2	3	LIMITS AND CONTINUITY	X				1,66	6,5
	4	DISCUSSION AND SOLUTION OF PROBLEMS		X			1,66	
3	5	DIFFERENTIABILITY AND PARTIAL DERIVATIVES, DERIVATIVE MATRIX AND GRADIENT VECTOR	X				1,66	6,5
	6	DISCUSSION AND SOLUTION OF PROBLEMS		X			1,66	
4	7	CHAIN RULE, DIRECTIONAL DERIVATIVES	X				1,66	6,5
	8	DISCUSSION AND SOLUTION OF PROBLEMS		X			1,66	
5	9	HIGHER ORDER DERIVATIVES, LOCAL EXTREMA	X				1,66	6,5
	10	DISCUSSION AND SOLUTION OF PROBLEMS		X			1,66	
6	11	CONDITIONAL EXTREMA, LAGRANGE MULTIPLIERS, GLOBAL EXTREMA	X				1,66	6,5
	12	DISCUSSION AND SOLUTION OF PROBLEMS		X			1,66	

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7	13	INTEGRALS ON \mathbb{R}^n . PARTIAL EVALUATION	FIRST	X			1,66	6,5
	14	DISCUSSION AND SOLUTION OF PROBLEMS			X		1,66	
8	15	ITERATIVE INTEGRATION, FUBINI'S THEOREM, APPLICATIONS		X			1,66	6,5
	16	DISCUSSION AND SOLUTION OF PROBLEMS			X		1,66	
9	17	CHANGE OF VARIABLES, POLAR, CYLINDRICAL AND SPHERICAL COORDINATES, APPLICATIONS		X			1,66	6,5
	18	DISCUSSION AND SOLUTION OF PROBLEMS			X		1,66	
10	19	LINE INTEGRALS, CONSERVATIVE FIELDS		X			1,66	6,5
	20	DISCUSSION AND SOLUTION OF PROBLEMS			X		1,66	
11	21	SURFACE INTEGRALS		X			1,66	6,5
	22	DISCUSSION AND SOLUTION OF PROBLEMS			X		1,66	
12	23	GREEN, GAUSS AND STOKES THEOREMS		X			1,66	6,5
	24	DISCUSSION AND SOLUTION OF PROBLEMS			X		1,66	
13	25	LAPLACE TRANSFORMATION		X			1,66	6,5
	26	DISCUSSION AND SOLUTION OF PROBLEMS			X		1,66	
14	27	LINEAR DIFFERENTIAL EQUATIONS		X			1,66	6,5
	28	DISCUSSION AND SOLUTION OF PROBLEMS			X		1,66	
	29	Additional session. PARTIAL EVALUATION	SECOND	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 (<i>Maximun 160 horas</i>)							160	