

WEEK	Session	DESCRIPTION	LECTURES	SEMINARS
1	1	Chapter 1: Introduction to the Topology of Euclidean spaces. Open, closed, bounded sets. Interior and boundary. Convex sets	X	
1	2	Chapter 1. Exercise 1-1.		X
2	3	Chapter 2: Functions of several variables. Domain and Range of a function. Graphic of a function of several variables. Level curves and surfaces.	X	
2	4	Chapter 1: Exercises 1-1 and 1-2.		X
3	5	Chapter 2: Functions of several variables. Limits of functions. of functions of several variables	X	
3	6	Chapter 1: Exercises 2-1, 2-2 and 2-3.		X
4	7	Chapter 2: Functions of several variables. Continuity of functions of several variables.	X	
4	8	Chapter 2: Exercises 2-5.		X
5	9	Chapter 2: Global extrema. Weierstrass' Theorem	X	
5	10	Chapter 2: Exercise 2-6.		X
6	11	Chapter 3: Differential calculus of functions of several variables. Partial derivatives. Gradient vector.	X	
6	12	Chapter 2: Exercises 2-7, 2-8, 2-9, 2-10, 2-11.		X
7	13	Chapter 3: Differential calculus of functions of several variables. Directional derivatives. Interpretation of the gradient.	X	
7	14	Chapter 3: Exercises 3-1, 3-2, 3-3. <b>QUIZ 1</b>		X
8	15	Chapter 3: Differentiability. Chain rule.	X	
8	16	Chapter 3: Exercises 3-4, 3-5, 3-6, 3-7, 3-8, 3-9, 3-10, 3-11.		X
9	17	Chapter 3: Derivative along a curve. Line and tangent planes. Taylor's polynomial of order 1	X	
9	18	Chapter 3: Exercises 3-12, 3-13, 3-14, 3-15, 3-16, 3-17.		X
10	19	Chapter 4: Second order derivatives. Hessian matrix. Implicit differentiation.	X	
10	20	Chapter 4: Exercises 3-18, 3-19, 3-20.		X
11	21	Chapter 4: Applications of the Implicit function Theorem. Taylor Polynomials	X	
11	22	Chapter 4: Exercises 4-1, 4-2, 4-3, 4-4, 4-5, 4-6..		X
12	23	Chapter 4: Quadratic forms. Characterizations	X	
12	24	Chapter 5: Exercises 4-7, 4-8, 4-9, 4-10.. <b>QUIZ 2</b>		X
13	25	Chapter 4: Concave and convex functions	X	
13	26	Chapter 4: Exercises 4-11, 4-12, 4-13, 4-14..		X
14	27	Chapter 4: Characterizations of concave and convex functions	X	
14	28	Chapter 4: Exercises 4-15, 4-16, 4-17, 4-18, 4-19, 4-20.		X