

Academic Year: (2019 / 2020)

Review date: 02-05-2019

Department assigned to the subject: Mathematics Department

Coordinating teacher: MORO CARREÑO, JULIO

Type: Basic Core ECTS Credits : 6.0

Year : 1 Semester : 1

Branch of knowledge: Engineering and Architecture

OBJECTIVES

In this first course of Calculus the students should acquire the mathematical background needed to understand and apply the concepts and techniques appearing in Statistics. In particular to be acquainted with real functions of one variable, their properties of continuity, derivability, integrability and their graphic representation.

DESCRIPTION OF CONTENTS: PROGRAMME

- 1.- Numerical systems. Sequences
- 2.- Elementary Functions
- 3.- Limits and continuity
- 4.- Continuous functions on $[a,b]$
- 5.- Derivative of a function. Calculus of derivatives
- 6.- Rolle's theorem. Mean value theorem: consequences
- 7.- Local study of a function: Taylor's theorem
- 8.- Graphing functions. Optimization problems
- 9.- Indefinite integral
- 10.-Definite integral

ASSESSMENT SYSTEM

The evaluation will be based on the following criteria:

- Four partial evaluation controls (50%)
- Final control (50%)

% end-of-term-examination:	50
% of continuous assessment (assignments, laboratory, practicals...):	50

BASIC BIBLIOGRAPHY

- S. L. Salas, E. Hille y G. J. Etgen Calculus (Vol I), Reverté.