Teaching guide

IDENTIFICATION DETAILS

Degree:	Computer Engineering

Field of Knowledge:	Engineering and Architecture

Faculty/School:	Senior Polytechnic School

Course:	CALCULUS

Type:	Basic Training	ECTS credits:	6

Year:	1	Code:	3619

Teaching period:	Second semester

Area:	Mathematics

Module:	Basic Training

Teaching type:	Classroom-based

Language:	Spanish

Total number of student study hours:	150

SUBJECT DESCRIPTION

The Calculus course applies and develops knowledge of differential calculus and integral calculus in real functions of a variable and introduces differential calculus and integral calculus for real functions of multiple variables, while providing examples of the practical application of the different concepts discussed.

SKILLS

Basic Skills

Students must have demonstrated knowledge and understanding in an area of study that is founded on general

secondary education. Moreover, the area of study is typically at a level that includes certain aspects implying knowledge at the forefront of its field of study, albeit supported by advanced textbooks

Students must be able to apply their knowledge to their work or vocation in a professional manner and possess skills that can typically be demonstrated by coming up with and sustaining arguments and solving problems within their field of study

Students must have the ability to gather and interpret relevant data (usually within their field of study) in order to make judgments that include reflections on pertinent social, scientific or ethical issues

Students must be able to convey information, ideas, problems and solutions to both an expert and non-expert audience

Students must have developed the learning skills needed to undertake further study with a high degree of independence

General Skills

Knowledge for preparing measurements, calculations, valuations, appraisals, inspections, studies, reports, task planning and other similar computing work.

Knowledge of the basic materials and technologies, giving rise to learning and the developing of new methods and technologies, and which also provide huge versatility to adapt to new contexts.

An ability to solve problems with initiative, with effective decision-making, independence and creativity. Capacity for being able to communicate and convey knowledge and skills of the technical computer engineering profession.

Specific skills

An ability to solve mathematical problems that arise in engineering. An ability to apply knowledge of: linear algebra, differential and integral calculus, numerical methods, numerical algorithms, statistics and optimisation.

DISTRIBUTION OF WORK TIME

CLASSROOM-BASED ACTIVITY	INDEPENDENT STUDY/OUT-OF-CLASSROOM ACTIVITY
67　hours	83　hours