

# *Infinitesimal Calculus 1*

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DEPARTMENT:	Mathematics
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WEB PAGE:	<a href="http://caminos.udc.es/info/asignaturas/grado_tecic/102/CI">http://caminos.udc.es/info/asignaturas/grado_tecic/102/CI</a>

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COURSE:	First year (Degree on TECIC)
TYPE OF SUBJECT:	Basic training. 1st term
NUMBER OF CREDITS:	6 ECTS (4 h/week)

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## **Objectives:**

- To provide a solid mathematical basis for the rest of the subjects and a tool for solving problems that may arise during the university studies and in the professional practice.
  - To encourage a rigorous and analytical reasoning.
  - To relate the different theoretical concepts and to apply them in practice.
  - To stimulate creativity in finding solutions.
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## **Organization:**

- As a general rule, there are 2 theoretical lessons and 2 practical lessons each week. In the first ones, the theoretical aspects of the subject are exposed together with examples; exercises are also proposed for resolution as a personal work. During the practical lessons, problems announced in advance (*practice problems* and *practice integrals*) are solved. Exercises are periodically proposed for optional resolution and submission on certain dates (*optional exercises*).
  - The *list of contents* of the subject can be downloaded from the website. In it the approximate number of theoretical and practical lessons corresponding to each unit is indicated. Every two weeks a *lessons plan* is published, where the type of the lessons of that period (theory, problems, integrals) is announced.
  - The *lessons plan* provides access to documents that indicate approximately the sections of the units to be covered in each of the theoretical lessons. In these documents, different questions related to the subject corresponding to each session are raised.
  - The *course notes* -with self-assessment exercises for each unit- and other *supplementary documents* can be downloaded from the website. These documents include proofs, solved problems, etc.
  - There is also a *collection of exam questions and problems* (in Spanish) proposed since the academic year 2010/11. Its resolution can be useful for the preparation of the subject.
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## **System of Evaluation:**

Throughout the course, various short exercises (*assessments*) are carried out in the classroom, at no fixed intervals and without prior notice, in addition to two final exams in January and July.

There are two ways to pass the subject:

**Option 1.** Both in January and July, the subject is passed by obtaining 50 points or more as the sum of the final exam grade (out of 80) plus the sum of the *assessments* grades (out of 20). The submission of the *optional exercises* is valued up to a maximum of 5 points that are added to the global mark, as long as a minimum of 45 points is reached between the *assessments* and the final exam.

**Option 2.** The subject is also passed by obtaining a grade of 40 out of 80 in the January or July exam. In this case, the *optional exercises* are not taken into account.

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## **Tutorial sessions:**

During the hours announced on the web or at other times by agreement with the lecturer. Questions can be asked during or at the end of each lesson.