

COMPUTATIONAL MATHEMATICS LABORATORY

General information



Semester: **1 and 2**

Language: **English**

Modality: **Online Eskolan**

Description



This course aims to deepen the use of the Matlab tool for solving mathematical and engineering problems of various kinds. Students will solve practical cases such as the calculation of the load that a structure can support or the propagation of epidemics.

Methodology



- The course will include lectures in which theoretical concepts and application examples will be explained. It will also have a very practical character as a large number of exercises and group or pair work will be carried out.

Contents



1. Introduction.
2. Solving non-linear equations.
3. Solving systems of equations
4. Interpolation and curve fitting
5. Derivation and numerical integration.
6. Solving differential equations and systems of differential equations.
7. Optimization