Degree competences to which the subject contributes

Specific:
8382. Experience in numerical simulations. Acquisition of fluency in modern numerical simulation tools and their application to multidisciplinary problems engineering and applied sciences.
8383. Interpretation of numerical models. Understanding the applicability and limitations of the various computational techniques.
8384. Experience in programming calculation methods. Ability to acquire training in the development and use of existing computational programs as well as pre and post-processors, knowledge of programming languages and of standard calculation libraries.

Teaching methodology

The course will alternate lectures and practical classes in which students present their oral or written work.

Learning objectives of the subject

The objective of the module is to help the students identify the important aspects of the preparation of scientific works and papers, while improving their written communication skills.

* To learn the methodology to elaborate the structure of a scientific text.  * To identify the key aspects for preparation of research works and articles.  * To rationally use computational techniques for the preparation and presentation of scientific works.  * To be able to adapt the work to a deadline, summarizing and organizing complex ideas to clarify them upon their presentation to an audience, improving their comprehension.

* Written communication: Reports, thesis, magazines and articles in conferences  Learning resources: notes

This course will give you the guidelines to improve your ability in creating well-crafted academic communication. The guidelines on how to create good oral presentation as well as journal papers or scientific reports will be given. An overview on how to design a research poster will be treated as well.
You will practice your communication skills during the course and you will receive feedback from your colleagues and from the lecturers.

### Study load

<table>
<thead>
<tr>
<th>Total learning time: 125h</th>
<th>Theory classes: 20h</th>
<th>16.00%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Practical classes: 0h</td>
<td>0.00%</td>
</tr>
<tr>
<td></td>
<td>Laboratory classes: 20h</td>
<td>16.00%</td>
</tr>
<tr>
<td></td>
<td>Guided activities: 5h</td>
<td>4.00%</td>
</tr>
<tr>
<td></td>
<td>Self study: 80h</td>
<td>64.00%</td>
</tr>
</tbody>
</table>

**Learning time**:

- **Theory classes**: 2h
- **Self study**: 2h 48m

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### Content

#### Introduction

**Description:**

Introduction

**Learning time:** 4h 48m

- **Theory classes**: 2h
- **Self study**: 2h 48m

#### aspects of oral and written communication

**Description:**

Oral presentations, tips and tricks
Long writing - The scientific reporting
Poster basics

**Learning time:** 43h 12m

- **Theory classes**: 18h
- **Self study**: 25h 12m

#### Group Practices

**Description:**

Oral presentation
Extended abstract
Poster

**Learning time:** 48h

- **Laboratory classes**: 20h
- **Self study**: 28h
## Qualification system

The mark of the course is obtained from the ratings of continuous assessment made in class and at home.

Continuous assessment consists in several activities, both individually and in group, of additive and training characteristics, carried out during the year.

## Regulations for carrying out activities

Failure to perform the continuous assessment activity in the scheduled period will result in a mark of zero in that activity.

## Bibliography

### Basic:

A. Larese. Apuntes de clase.