

Degree	Type	Year	Semester
4313136 Modelling for Science and Engineering	OT	0	2

Contact

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Use of languages

Principal working language: english (eng)

Prerequisites

None

Objectives and Contextualisation

Students will do the Internship in Companies (public or private, national or international) or in Institutions (Research Centers and / or University Departments). The aim is to introduce the students to the professional world that they will find in the future, whether they want to take a PhD or to work in a Company. In this way we hope that they will be able to find out what they want to do once they finish the Master's program.

Skills

- Analyse, synthesise, organise and plan projects in the field of study.
- Apply techniques for solving mathematical models and their real implementation problems.
- Isolate the main difficulty in a complex problem from other, less important issues.
- Recognise the human, economic, legal and ethical dimension in professional practice.
- Safeguard, manage, audit and certify the quality of advanced developments, processes, systems and software.
- Solve complex problems by applying the knowledge acquired to areas that are different to the original ones.

Learning outcomes

1. Check that the decisions taken are the most appropriate.
2. Organise and plan the assigned tasks
3. Prioritise the tasks involved in problem-solving
4. Provide specific solutions to the problems posed.
5. Show a positive, active, professional attitude.
6. Solve mathematical models efficiently.

Content

There are no theoretical contents for this module.

Methodology

Students who have taken this module (it is not compulsory, but it is highly recommended), will meet with the Master's Coordinator in November to discuss their preferences regarding particular Companies and/or Institutions. Then, the University (sometimes, the students themselves) will contact the Centres in order to get an authorization for the student to do the Internship.

It is necessary to sign an agreement between the University and the Company. This procedure is done with the help of the Science Faculty, because in fact, who really signs the agreement are the Dean of the Faculty of Sciences and also the designed person of the Centre. The document clearly states the name of the tutor appointed by the Company, the Academic tutor in the university, the dates and the working plan. Since the module has 12 ECT's, the total amount of hours is 300.

Activities

Title	Hours	ECTS	Learning outcomes
Type: Supervised			
Development of practices	295	11.8	1, 2, 3, 4, 5, 6
Work planning	5	0.2	1, 2, 3

Evaluation

The assessment of this module is made taking into account two items:

The first one is a report done by the tutor appointed by the Company, which consists in filling out a form evaluating certain aspects of the work done by the student.

The second one is a descriptive report written by the student, explaining what he has been doing in the Company.

Evaluation activities

Title	Weighting	Hours	ECTS	Learning outcomes
Descriptive report written by the student	20%	0	0	1, 2, 3, 4, 5, 6
Report done by the tutor appointed by the Company/Institution	80%	0	0	1, 2, 3, 4, 5, 6

Bibliography

There are no specific references.