Universidad Zaragoza

Year : 2019/20

66117 - Internships

Syllabus Information

Academic Year: 2019/20
Subject: 66117 - Internships
Faculty / School: 100 - Facultad de Ciencias
Degree: 539 - Master's in Nanostructured Materials for Nanotechnology Applications
ECTS: 5.0
Year: 1
Semester: Annual
Subject Type: Optional
Module: ---

1.General information

1.1.Aims of the course

This course allows students to gain a very high level of specialisation in the topic area of the work developed at the company, meanwhile they become aware of the real applications of nanoscience and nanotechnology at an industrial level.

1.2.Context and importance of this course in the degree

This course stands as an opportunity to develop the practical application of the core competences acquired in the Master to a real problem where the student will face his/her daily work in a company. To achieve the above, the student will make use of the theoretical knowledge, attitudes, aptitudes and skills mainly acquired over the six core courses of the Master programme.

1.3.Recommendations to take this course

The "Internships" course is an optional module equivalent to 5 ECTS credits or 125 student work hours.

As the whole course is taught in English, students need to have an upper-intermediate level in the language: minimum level B1 in the European Common Framework Language Reference, but preferably level B2. Level B1 is reached when the student is able to understand the main points of clear, standard-language texts when covering known matters - whether in terms of work, study or leisure; when able to cope in most situations which the student encounters during a trip to places where the language is spoken; when able to write simple, coherent texts on familiar topics or those in which the student has an interest; and when able to describe experiences, happenings, wishes and ambitions as well as briefly justify opinions or explain plans. B2 is achieved when the student is able to understand the main ideas of complex texts that deal with both specific and abstract topics, even if these are technical - though within the field of specialisation; when able to communicate with native speakers with the degree of fluency and ease such that the communication takes place without effort on either side; and when able to write clear, detailed texts on diverse subjects as well as defend a point of view on general topics - giving the pros and cons of the different options.

2.Learning goals

2.1.Competences

After completing the course, the student will be competent in the following skills:

- Abilities for independent study and self-teaching required to undertake the research or professional activity in the near future.
- General abilities for good professional practice.
- Assess the true difficulties that come with application of Nanoscience and Nanotechnology to a market product.
- Face unexpected problems with the right methods.

2.2.Learning goals

The student, in order to pass the course, will have to show her/his competence in the following skills:

- Development of an experimental project with significant levels of independence and originality.
- Application of the theoretical knowledge to the specific problems they will encounter in their daily work at the

company.

- Oral and written communication skills.

2.3.Importance of learning goals

Through this highly specialised course, the students will be able to apply their knowledge of the topic to be developed into a project in the framework of a real application in a Nanotechnology-related company, gaining abilities that will be of service in their immediate professional future.

3.Assessment (1st and 2nd call)

3.1.Assessment tasks (description of tasks, marking system and assessment criteria)

The student will present a written report with a maximum of 10 pages excluding cover page and index (Times New Roman 12, spacing 1.5) that brings together the project undertaken. This report should have the previous approval from both: the tutor at the company and the academic tutor.

The report will be assessed by a committee of three members (score between 1 and 10). In addition to the written report, a public presentation of the work will be made in front of a board of three examiners. If required by the company these examiners will sign a non-disclosure agreement (NDA). The presentation will last a maximum of 15 minutes and will be followed by a debate. The final mark will take into account the report of the company about the student work, its particular contribution to the project, the quality of the written report, its oral presentation and defence.

4.Methodology, learning tasks, syllabus and resources

4.1.Methodological overview

The project will be directed and supervised by an expert at the company and also by an academic tutor.

The students will have free access to the UZ library which has powerful databases, specialised books and subscriptions to numerous scientific magazines.

4.2.Learning tasks

The programme offered to the students to help them achieve the learning results includes the following activities:

Highly personalised tutoring which: i) favours an increase in the student's autonomous work, ii) encourages students to give their own ideas and to participate in all stages of the project (planning, undertaking experiments, interpretation of results and circulation).

4.3.Syllabus

4.4.Course planning and calendar

The precise dates and timetable will be discussed with the student and the academic and industrial supervisors. The academic supervisor will make sure that the calendar in the company is compatible with the rest of academic activities related to the Master.

This is a year-long module although doing it in the second term, once finished the core courses, is highly reconmended.

Further information concerning the Internships Procedure via Universa (http://www.unizar.es/universa/practicas/) will be provided on the welcome session by the coordinator of the Master.

4.5.Bibliography and recommended resources