

Degree programme	Type	Course
Research and Innovation in Computer based Science and Engineering	PR	1

Contact lecturer

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Prerequisites

There are no prerequisites.

Group languages

You can consult this information at the [end](#) of the document.

Objectives

Students will carry out internships in research groups of companies (public or private) or in institutions (Research Centers and/or university departments). The objective is to introduce students to the world of innovation and research so that they know the professional environment they will find in the future, whether they want to get a doctorate or work in a company. This experience will help them guide their professional career once they finish the master's program.

Learning outcomes

- CA20 (Apply specific research methodology, techniques and resources to research and produce innovative results based on advanced computing systems.) Apply specific research methodology, techniques and resources to research and produce innovative results based on advanced computing systems.
- KA26 (Describe research challenges taking into account the state of the art and open lines of interest.) Describe research challenges taking into account the state of the art and open lines of interest.
- KA27 (Identify stereotypes and gender roles that appear in mixed working groups.) Identify stereotypes and gender roles that appear in mixed working groups.
- SA35 (Propose solutions to problems related to the application of advanced computational methods as part of a working group.) Propose solutions to problems related to the application of advanced computational methods as part of a working group.
- SA36 (Communicate the results of your work and the rationale behind them to specialised and non-specialised audiences in a clear and unambiguous way.) Communicate the results of your work and the rationale behind them to specialised and non-specialised audiences in a clear and unambiguous way.
- SA37 (Plan the activities involved in completing a given task within a working group and appropriately manage time and resources.) Plan the activities involved in completing a given task within a working group and appropriately manage time and resources.
- SA38 (Work as part of a mixed team that includes supervisors and both specialist and non-specialist members.) Work as part of a mixed team that includes supervisors and both specialist and non-specialist members.

Contents

There is no theoretical content in this module.

Learning activities and methodology

Title	Hours	ECTS	Learning outcomes
Development of practical work	140	5.6	

In the Work Placement, the students will carry out a work stay in a research group where they will collaborate in one of their research topics. Research groups can belong to the university departments that participate in this master or to research centers, public institutions or companies that have R+D+i groups with which a collaboration agreement is established. Each student will have an academic tutor, belonging to one of the university departments and in charge of conducting follow-up meetings, and a tutor in the host group, who will help him to set a work plan, and will guide and supervise him during his stay. This tutor will also be responsible for the correct interaction and integration of the student with the rest of the members of the research group.

The reception of students in the different research groups will be carried out under the overall supervision and help of the master's coordinator, based on the preferences of the students and informative talks by the group leaders who are willing to host students in practice. A list of offers for master's students will be published on the Virtual Campus. It is the responsibility of the student to find the research group in which he can carry out the external practices.

Once the host research group has been found, the student, with the help of the coordinator, will fill out the form necessary to draw up the agreement between the UAB and the external institution. The form will clearly indicate the name of the tutor appointed by the company or institution, the academic tutor of the university (appointed by the master's coordinator), the dates and the work plan. Once the form is completed and signed, the student must deliver a copy to the Engineering School's Academic Management one month before the start of the internship. Next, the University will contact the centers to obtain authorization to carry out the internships and sign the official agreement. If the internship takes place in a group that belongs to a department or institute of the UAB, it will not be necessary to draw up any agreement and only an academic tutor belonging to the receiving group will be appointed.

In this course, the use of Artificial Intelligence (AI) technologies is permitted as an integral part of the assignment development, provided that the final result reflects a significant contribution from the student in personal analysis and reflection. The student must clearly identify which parts were generated using this technology, specify the tools used, and include a critical reflection on how they influenced the process and final outcome of the assignment. Lack of transparency in the use of AI will be considered a breach of academic honesty and may result in a penalty on the assignment grade or greater sanctions in serious cases.

Annotation: within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Assessment

Continuous assessment activities

Title	Weight	Hours	ECTS	Learning outcomes
Report of the tutor at the host group	70%	0	0	SA36, SA37, SA38
Student's practice report	30%	10	0.4	CA20, KA26, KA27, SA35, SA36, SA37, SA38

The evaluation of Work Placement internships is based on three elements:

- a report prepared by the student describing the work carried out during his internship period, which will be assessed, among other elements, for the clarity and conciseness of his writing, the precision and correctness in the use of technical terminology, and the reflective capacity and criticism on the results obtained in the realization of the practices.
- a report drawn up by the external tutor (70%) where the various aspects of the student's work are assessed, such as: technical capacity and learning capacity, degree of responsibility and personal initiative, ability to adapt and work in a team, receptivity to suggestions and criticism, and oral and written communication skills.
- a report from the academic tutor (if needed) with the assessment of the report prepared by the student (30%) and the progress information gathered during the follow-up meetings, assessing the student's capacity for critical reflection regarding the work done and its evolution during the internship, of its acquisition of skills and competences, and the final results obtained.

The deadlines for submitting these reports will be indicated at the beginning of the course according to the academic calendar set by the School of Engineering.

Bibliography

The student will be responsible for the research and consulting literature required to perform their practice. He/she may be helped by the supervisor.

Recommended readings:

- Bosch, X. 2010 Safeguarding good scientific practice in Europe. *EMBO reports* 2010 11: 252-7
- European Science Foundation (2000) Good scientific practice in research and scholarship. *ESF Sci Policy Brief* 10: 1-16

Software

Software will depend on the practices performed by the student.

Course groups and languages

The information provided is provisional until November 30. After this date, you will be able to consult the language of each group through this [link](#). To access the information, you will need to enter the course CODE

Type of teaching	Group	Language	Semester	Shift
(PEXTm) Pràctiques externes i pràcticum (màster)	1	Unknown	Undefined	morning-mixed