

Work Placement I

Code: 42842
ECTS Credits: 9

Degree	Type	Year	Semester
4313797 Telecommunications Engineering	OT	2	1

Contact

Name: Gary Junkin

Email: Gary.Junkin@uab.cat

Other comments on languages

Professional Activities I

Use of Languages

Principal working language: english (eng)

Prerequisites

It will have to have the approval of the External Practices Manager (in this case the Master Coordinator), who will ensure the quality of the projects offered and their adaptation to the objectives of the Master. It should be mentioned that the External Practices Manager can act as academic tutor by default, except in those cases in which the subject of the Training Project, the collaborating entity itself or any other circumstance, advise that another teacher of the School with teaching in the Master is the one in charge of assuming the responsibility of academic tutor.

Objectives and Contextualisation

This option is in accordance with the provisions of the Statute for University Students approved by Royal Decree 1791/2010 (BOE of December 31), in which article 9 reflects the right of master students to have the opportunity to practice , either in the same center or in external entities.

The objective of the modules of the professional practices is to carry out internships in companies in the telecommunications sector, seeking: to deepen the knowledge, skills and attitudes of the Telecommunications Engineering professional; linking students with the business reality of the sector. The Professional Internship Module I will complement the theoretical training of the student with practical experience in the field of technology, while the professional practices module II will do so in the field of management.

Competences

- Capacity for critical reasoning and thought as means for originality in the generation, development and/or application of ideas in a research or professional context.
- Capacity for working in interdisciplinary teams
- Capacity to integrate new technologies and systems developed within telecommunications engineering in general and in broader, multidisciplinary contexts such as bioengineering, photovoltaic conversion, nanotechnology, telemedicine
- Demonstrate an entrepreneurial, creative and innovative spirit
- Maintain proactive and dynamic activity for continual improvement

- Respect and promote human rights, democratic principles, principles of sex equality, solidarity, universal accessibility and design for all, prevention of labour risks, environmental protection and promotion of a culture of peace
- Students should be capable of integrating knowledge and facing the complexity of making judgements using information that may be incomplete or limited, including reflections on the social and ethical responsibilities linked to that knowledge and those judgements
- Students should know how to apply the knowledge they have acquired and their capacity for problem solving in new or little known fields within wider (or multidisciplinary) contexts related to the area of study
- Students should know how to communicate their conclusions, knowledge and final reasoning that they hold in front of specialist and non-specialist audiences clearly and unambiguously

Learning Outcomes

1. Apply the appropriate methodology for the development of the problem, combining theoretical developments and simulations accordingly
2. Assess project results by comparing them with previous similar results from external sources and identifying the project contributions in the current knowledge in the topic.
3. Capacity for critical reasoning and thought as means for originality in the generation, development and/or application of ideas in a research or professional context.
4. Capacity for working in interdisciplinary teams
5. Demonstrate an entrepreneurial, creative and innovative spirit
6. Identify the project objectives.
7. Maintain proactive and dynamic activity for continual improvement
8. Respect and promote human rights, democratic principles, principles of sex equality, solidarity, universal accessibility and design for all, prevention of labour risks, environmental protection and promotion of a culture of peace
9. Students should be capable of integrating knowledge and facing the complexity of making judgements using information that may be incomplete or limited, including reflections on the social and ethical responsibilities linked to that knowledge and those judgements
10. Students should know how to apply the knowledge they have acquired and their capacity for problem solving in new or little known fields within wider (or multidisciplinary) contexts related to the area of study
11. Students should know how to communicate their conclusions, knowledge and final reasoning that they hold in front of specialist and non-specialist audiences clearly and unambiguously
12. Synthesize the information obtained and the expertise in a comprehensive and structured overview of the state of the art project theme

Content

Regarding the realization of professional practices, the student may choose to carry them out in any of the research centers or entities associated with the UAB, such as the Computer Vision Center (CVC), the National Microelectronics Center (CNM), the Institute of Space Studies of Catalonia (IEEC), the Institute of Artificial Intelligence Research (IIIA) or the Alba Synchrotron, or in companies / external entities. In the latter case, the student can benefit from the agreements that the UAB Engineering School already has signed with a large number of strategic companies. These are both companies directly related to the ICT hypersector, telecommunications operators (Telefónica, Orange), communications equipment manufacturers (Mier Comunicaciones, Indra Espacio, Gigle Networks), component manufacturers (Fractus, Ficosa, Siemens), electronic equipment manufacturers (Agilent Technologies, Hewlett-Packard, Hitachi, Simon, Sony), consulting and certification companies (Applus, Altran, Everis, Accenture), systems engineering companies (Atos Origin, Elecnor-Deimos, GMV, Indra Sistemas) or companies not directly related to the ICT hypersector, but where the presence of ICT specialists is necessary to carry out certain essential functions for the company. This is the case of agreements signed with pharmaceutical companies such as Bayer, B-Braun, Novartis, or with automotive companies such as Seat.

There is a collaboration agreement model for conducting external internships.

Methodology

External practices developed by all students will have the supervision of an academic tutor and a tutor at the collaborating institution. At the beginning of the semester, both tutors will be responsible for defining a Training Project in accordance with the objectives of the Master in Telecommunication Engineering. Exceptionally, students may also propose a Training Project agreed individually with a cooperating entity.

The teaching methodology will combine meetings between the student and the supervisor / tutor and the autonomous work carried out by the student.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Supervised			
Supervised work at the collaborating entity.	200	8	1, 2, 3, 4, 5, 6, 7, 9, 10, 8
Type: Autonomous			
Autonomous work by student	20	0.8	5, 11

Assessment

After assigning external internships to the student, he / she must proceed with the enrollment of the credits established by the study plan. To do this, this Master's degree awards a total of 18 elective ECTS credits for the activity of external internships that the student develops within the framework of the Training Project agreed with the collaborating entity. These credits are distributed in two subjects of 9 ECTS credits each, and that the student must pass to obtain recognition of external practices. These are the subjects "Professional Practices I" and "Professional Practices II", which correspond to the two halves in which the total duration of the student's external practices can be divided. This division in two blocks allows: 1) to perform an intermediate follow-up of the student, as established in RD-1707/2011 in article 13.2, and 2) create a differentiated profile between the first and second half of the internship . In particular, the first half will focus on the development of technical skills in the field of Telecommunications Engineering, while the second half, without neglecting technical skills, will focus on the development of competencies in the field of management .

Finally, based on the corresponding monitoring reports and the final assessment report issued by the tutor of the collaborating entity, the academic tutor will evaluate the two professional internship subjects.

The final grade will be obtained from:

- 60% final report of the activities carried out by the student provided by the supervisor of the company.
- 40% final report provided by the student.

Both reports will be delivered to the Coordinator of the Master at the end of the training period with the company.

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Final report provided by student	40%	5	0.2	2, 5, 6, 11, 12

Bibliography

Relevante bibliography may be suggested by the collaborating entity.