Universitat Autònoma de Barcelona

**2023/2024**

# IT Project Management

Code: 102191
ECTS Credits: 6

| Degree | Type | Year | Semester |
|---|---|---|---|
| 2501232 Business and Information Technology | OB | 3 | 2 |

## Contact

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## Teaching groups languages

You can check it through this link. To consult the language you will need to enter the CODE of the subject. Please note that this information is provisional until 30 November 2023.

## Prerequisites

There are no specific prerequisites formally established for this course. However, it is advisable its enrollment only when most of the credits for the subjects of both the first and second year have been obtained, since it is actually a course designed for the sixth and last semester with compulsory subjects in the curriculum of the Bachelor's Degree in Business and Information Technology. Moreover, its contents is also directly related to the last formative stage related to the preparation of the Bachelor's Degree Final Project.

## Objectives and Contextualisation

The course is twofold. The specific goal is to introduce students to the knowledge, techniques and skills needed to design, plan and develop projects in business and organizations, and specifically projects concerning technological innovations and business information systems. At the same time, the course provides tools of interest for the development of the Bachelor's Degree Final Project during the fourth year.

At the end of the course, students will be able to:

- Define the basic objectives of a project, carrying out a preliminary feasibility study; as well as to accurately define the scope of the project that the organization has finally decided on, using social, economic and environmental criteria.
- Identify and plan the various tasks required to implement a project, defining the relevant timeframe and allocation of resources, and also do that using the most appropriate software tools.
- Assess both costs and risks associated with the project; and appropriately define the required quality standards, developing tools and methodologies to ensure compliance.
- Propose a viable methodology for monitoring and controlling the project during its execution, including the use of appropriate computer tools.

Students must also be able to adequately communicate information on the projects studied, both using written reports and oral presentations, through the various stages of completion of a particular project.

## Competences

- Capacity for working in teams.
- Demonstrating a comprehension of the techniques of elaboration and project management as well as their specific implementation to the environment of information systems and innovation management.
- Demonstrating a concern for quality in the objectives and development of the work.
- Demonstrating a sensibility towards social and environmental issues.
- Demonstrating the ability to plan in accordance to the objectives and available resources.
- Developing self-learning strategies.
- Make changes to methods and processes in the area of knowledge in order to provide innovative responses to society's needs and demands.
- Students must be capable of applying their knowledge to their work or vocation in a professional way and they should have building arguments and problem resolution skills within their area of study.
- Students must be capable of communicating information, ideas, problems and solutions to both specialised and non-specialised audiences.
- Students must develop the necessary learning skills in order to undertake further training with a high degree of autonomy.
- Take account of social, economic and environmental impacts when operating within one's own area of knowledge.

## Learning Outcomes

1. Analyse a situation and identify its points for improvement.
2. Carrying out different oral presentations for different audiences.
3. Communicating with experts of other fields and non-experts.
4. Demonstrating a comprehension of the individual and collective human behaviour in professional environments.
5. Demonstrating a comprehension of the techniques of elaboration and project management as well as their specific implementation to the environment of information systems and innovation management.
6. Demonstrating a concern for quality in the objectives and development of the work.
7. Demonstrating a sensibility towards social and environmental issues.
8. Demonstrating the ability to plan in accordance to the objectives and available resources.
9. Developing self-learning strategies.
10. Propose new methods or well-founded alternative solutions.
11. Propose viable projects and actions to boost social, economic and environmental benefits.
12. Students must be capable of applying their knowledge to their work or vocation in a professional way and they should have building arguments and problem resolution skills within their area of study.
13. Students must develop the necessary learning skills in order to undertake further training with a high degree of autonomy.
14. Weigh up the risks and opportunities of suggestions for improvement: one's own and those of others.
15. Working in teams, sharing knowledge and communicating it to the rest of the team and the organisation.

## Content

The course will be based on the following topics:

Unit 1. Basics of project management

This is an introductory topic, dealing with the attributes of a project, the project life cycle, the project management process, as well as introducing the settings in which projects are used in firms and organizations.

Unit 2. The initial phase of a project

The theme focuses on the elements required to identify needs, define precisely a proposed project, as well as the preparation of a request for proposals.

Unit 3. Project planning
The objective of this unit is to present the main processes involved in planning a project, so as to permit a priori detailed forecasts and subsequent control of its development.

Unit 4. Scheduling
The unit presents the basic techniques developed to ensure a proper plan for scheduling all activities needed in a complex project. Identify critical tasks ensuring completion within the scheduled time, as well as to make the proper allocation of scarce resources is also considered. The unit will make use of appropriate software for project scheduling.

Unit 5. Cost Planning
Financial and accounting concepts, as well as other tools previously studied in previous courses, will be put at work here, since the presentation of a project doubtless shall include cost estimates and budget provisions, as well as the submission of the associated business case.

Unit 6. Quality management and risk management in projects
The unit presents two different but equally important items in project management: managing quality during the completion and final results; and identify the most significant sources of risk, planning the appropriate responses to prevent them effectively.

Unit 7. Controlling a project
The implementation phase of any project requires the monitoring of the forecasts made at various levels (scheduling, resources, costs, quality) as well as the necessary adjustments in case of detecting or require modifications. The unit will also make use of information systems software for project management in the control stage of the project.

Unit 8. Project evaluation and reporting
Reporting, both at the time of completion of the project and in intermediate stages, is an important aspect of any project. It is essential to maintain the flow of information between project managers and the organization in which it is framed. Basic methodologies to master both oral and written reports in this last stage will also be considered.

## Methodology

Based on PBL, the course combines several techniques to favor formative learning:

- Presentation of basic concepts and standard methodologies commonly used for project management
- Practical classroom and laboratory classes, with the aim of consolidating its main concepts through the realization of ad-hoc practical cases.
- Teamwork throughout the semester, to define and plan a specific project ideated and proposed at the beginning of the course, which should be based on technological innovation and/or business information systems.
- Tutorials agreed between teachers and each of the work teams (supervised activity) to ensure the proper monitoring and development of the project.
- Oral and written presentations of progress reports of project development.

This approach combines individual learning, essential in any subject of study, with collaborative activities to ensure the quality of the team projects, thus consolidating the learning skills of each one of the team members.

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.

## Activities

| Title | Hours | ECTS | Learning Outcomes |
|---|---|---|---|
| Type: Directed | | | |
| A. Theoretical lectures | 20 | 0.8 | 1, 5, 7, 14, 10, 13, 12 |
| B. Classroom problems | 10 | 0.4 | 1, 3, 6, 4, 5, 7, 2, 14, 10, 11, 15 |
| C. Laboratory classes | 10 | 0.4 | 1, 8, 6, 5, 14, 10, 11, 13, 15 |
| D.Oral presentations and discussion of cases | 9.5 | 0.38 | 3, 8, 6, 5, 2 |
| Type: Supervised | | | |
| E. Tutorials | 20 | 0.8 | 8, 6, 4, 5, 7 |
| Type: Autonomous | | | |
| F. Independent study | 20 | 0.8 | 5, 13, 12 |
| G. Designing, preparing and drafting the course project | 59 | 2.36 | 1, 8, 6, 4, 5, 7, 14, 10, 11, 12, 15 |

## Assessment

The assessment of the course will be formative, thus carried out throughout the semester. It is based on the following learning evidences:

- Individual submission of practical cases proposed during the course. For some of them, an oral presentation will be required, thus encouraging the active participation of students in their own learning process.
- Submission of reports, both orally and in writing, regarding the different phases of the course team project.
- Submission of the final Project Management Plan for the course team project.
- A final exam carried out in the last week of the semester, to favor the individual consolidation of the whole content of the course.

The students' final grade will be obtained from the weighted sum of the assessments of the various evidences, considering specific weights for each of the four components:

N = 15% (individual submission of practical cases) + 10% (parcial reports concerning the course project) + 35% (Final Project Management Plan) + 40% (final exam)

subject to the three following constraints: (1) each one of the components of the assessment must be a strictly positive value, (2) the individual rating obtained in the final report of the project must be equal to or higher than 4.5, and (3) the score obtained in the final exam is at least 4.0 (out of 10). The marks obtained from teamwork during the course, as well as the final report of the project, will always be on an individual level, and not necessarily coincide with the assessment of the work itself, since individual aspects such as the students'participation and defense will also be considered.

Important notes regarding the assessment:

1. Students who have not passed the subject using the previous calculation, or who do not meet all the conditions to be able to do it, will have as final mark the lower value between 4.5 and the value of N above. A mark equal or greater than 3.5 entitles the student to participate in the retake process described below.

2. A student having not participated in any of the assessment activities will be considered "Not evaluable".

3. This subject does NOT offer the option for comprehensive evaluation.

Calendar of evaluation activities

The dates of the evaluation activities (exercises, assignments ...) will be announced well in advance during the semester.

The date of the final exam is scheduled in the assessment calendar of the Faculty.

*"The dates of evaluation activities cannot be modified, unless there is an exceptional and duly justified reason why an evaluation activity cannot be carried out. In this case, the degree coordinator will contact both the teaching staff and the affected student, and a new date will be scheduled within the same academic period to make up for the missed evaluation activity."* ***Section 1 of Article 115. Calendar of evaluation activities (Academic Regulations UAB)****.* Students of the Faculty of Economics and Business, who in accordance with the previous paragraph need to change an evaluation activity date must process the request by filling out an Application for exams' reschedule at
https://eformularis.uab.cat/group/deganat_feie/application-for-exams-reschedule

Grade revision process

After all grading activities have ended students will be informed of the date and way in which the course grades will be published. Students will be also be informed of the procedure, place, date and time of grade revision following University regulations.

Retake Process

*"To be eligible to participate in the retake process, it is required for students to have been previously been evaluatedfor at least two thirds of the total evaluation activities ofthe subject."* Section 3 of Article 112 ter. The recovery (UAB Academic Regulations). Additionally, it is required that the student to have achieved an average grade of the subject between 3.5 and 4.9.

The date of the retake exam is posted in the calendar of evaluation activities of the Faculty. Students taking this exam and passing will get a grade of 5 for the subject. The students having not passed the retake exam will be graded using his/her final exam grade, and hence, will fail the course.

Irregularities in evaluation activities

Despite other disciplinary measures deemed appropriate, and in accordance with current academic regulations, *"whenever a student makes any irregularity that could lead to a significant variation in the grade of an evaluation activity, it will be graded with a 0, regardless of the disciplinary process that can be instructed. In case of occurrence of various irregularities in the evaluation of the same subject, the final grade of this subject will be 0"*. ***Section 10 of Article 116. Results of the evaluation. (UAB Academic Regulations).***

## Assessment Activities

| Title | Weighting | Hours | ECTS | Learning Outcomes |
|---|---|---|---|---|
| a.Submission of practical cases | 15% | 0 | 0 | 1, 8, 6, 5, 7, 9, 2, 14, 10, 11, 12 |
| b. Submission of reports, both orally and in writing, concerning the course project | 10% | 0 | 0 | 1, 3, 8, 6, 4, 5, 9, 2, 14, 10, 13, 15 |
| c. Project Management Plan | 35% | 0 | 0 | 6, 5, 13, 12, 15 |
| d. Final exam | 40% | 1.5 | 0.06 | 1, 6, 5, 10, 11 |

## Bibliography

Avison, David E., and Gholamreza Torkzadeh. *Information Systems Project Management*, SAGE Publications, 2008. *ProQuest Ebook Central*, https://ebookcentral.proquest.com/lib/UAB/detail.action?docID=1159830.

Cobb, Anthony T.. *Leading Project Teams : The Basics of Project Management and Team Leadership*, SAGE Publications, 2011. *ProQuest Ebook Central*, https://ebookcentral.proquest.com/lib/uab/detail.action?docID=1995175.

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Nicholas, J.M. *Project Management for Business and Technology*. *Principles and Practice*. Prentice-Hall, 2nd. edition, 2001.

Rosen, Anita. *Effective IT Project Management : Using Teams to Get Projects Completed on Time and Under Budget*, AMACOM, 2004. *ProQuest Ebook Central*, https://ebookcentral.proquest.com/lib/UAB/detail.action?docID=243019.

To know more:

- Paquette, Paul, and Milan Frankl. *Agile Project Management for Business Transformation Success*, Business Expert Press, 2016. *ProQuest Ebook Central*, https://ebookcentral.proquest.com/lib/UAB/detail.action?docID=4307174.
- Pries, Kim H., and Jon M. Quigley. *Scrum Project Management*, Taylor & Francis Group, 2010. *ProQuest Ebook Central*, https://ebookcentral.proquest.com/lib/UAB/detail.action?docID=589930.
- Silvius, Gilbert, et al. *Sustainability in Project Management*, Taylor & Francis Group, 2012. *ProQuest Ebook Central*, https://ebookcentral.proquest.com/lib/UAB/detail.action?docID=906949.
- *A Guide to the Project Management Body of Knowledge (PMBOK® Guide)*, ProjectManagement Institute, 2017. *ProQuest Ebook Central*, https://ebookcentral.proquest.com/lib/UAB/detail.action?docID=5180849.
- Colmenar A. et al. *Gestión de proyectos con Microsoft Project 2007*. Ra-Ma, 2007.

## Software

In addition to the standard office suite (MS or open) for the written presentation of exercises, software is also used for the students' oral presentations (MS or any other with a similar purpose). Furthermore, specific project planning software (ProjectLibre) as well as other tools for management and control of projects is introduced.