## 122040038 - Bachelor of Computer Science

## 0038021 - Degree Final Project I

### Dades generals

**Codi:** 0038021

**Tipus:** OB

**Semestre:** 5

**Crèdits:** 6.0

**Llengua d'impartició:** Anglès

### Professorat

#### Professorat responsable

Virgós Bel, Manuel Fernando (Titulació: Doctor per la Universitat Politècnica de Catalunya; Àrea de coneixement: Ciències tecnològiques)

### Informació

**Presentació de l'assignatura:**

The Bachelor Final Project I (BFP-I) it is not a "conventional" subject, as the name allows to foresee, and is not based on conventional classes. Conversely, more than ever, the student is the core and the professor mainly a consultant and/or supervisor. Its aim is to push the global process through which the student will choose a matter/problem/project (from a reference list or proposed by itself) and study in depth current models and products, the state of the art, the market, the stakeholders, etc., and build a preliminary project (mainly conceptual: innovative model and specifications, not technical aspects) including, especially, the detailed planning of all activities needed to get the real project finished, which will be completed, during the next semester, through Bachelor Final Project II (BFP-II).

Should be especially stood out that most of the students will probably choose a work/task associated with a model that will finish as an executable system. Anyway this situation, even being the most common case, it is not the only option. Since the goal of the subject is mainly to certificate the mastering of the student in the profile contents, the

work, even certainly less common, sometimes could also be a study or a proposal which is relevant to the knowledge area and/or the country.

**Objectius:**

By taking this subject, the student does not need to complete any project (not yet!), not even a part (in some cases may be desirable to start a prototype, but never mandatory). On the contrary, the main goal of the module is directed to identify opportunities, define an initial concept, and complete a comparative study of existent models and/or products in general. As a consequence, evaluate technological state of the art, consider stakeholder's views, especially needs of potential customers and opportunities to add value through a new model underpinned on new technology capabilities. Therefore, define an innovative new model (way of doing things) and, as a consequence, define specifications of product to be build and its associate development planning.

This proposal, as much as possible, should put off details of technological implementation to later states (BFP-II)

In this academic context, we should emphasize the importance of providing a new model allowing the project be seen with an innovative orientation. Innovation and creativity, having creating value as a goal, are the main axis to be worked in individually as much as collectively. It is just because of this that cooperative working is so important in this subject, unlike BFP-II where is not the case.

Usually, the goal of next step (BFP-II) will be a piece of software and all phases in the life cycle should be considered. But, as stated in the introduction, projects could be found where a piece of software is not necessarily included.

In any case, the final goal is that the student presents a detailed planning of all the activities needed to complete de project, including the applied timings and restrictions (PERT/GANTT charts).Occasionally, according to the project and its progress, the student could go ahead on the life cycle and build/evaluate some prototype, but not in the general case.

**Metodologia:**

The development of the module will be based on blended learning trying to find some equilibrium among face to face classes (including professor's presentations) with student's house work and sharing it on the campus. Periodically the work will be presented to the group and discussed to share and validate the progress.

Although this subject does not include a conventional syllabus, the professor in an informal way will progressively introduce the concepts needed as a guide for the students.

In any case the use of virtual campus, as much as face to face meetings will be oriented to share concepts, doubts and points of view that any student applied to its own project. Shared Forums will be an essential part.

Globally speaking, face to face meeting, virtual campus sharing materials and Forums will be the basis of methodology. Videoconference with the professor, will be used when needed to complete the frame.

**Avaluació continuada:**

Will be carried out through delivering of preliminary versions to be worked in during the face to face meetings (minimum three for students choosing this option). The conclusions will be always made public for virtual students as much as those that could not attend the meeting.

**Avaluació final:**

Final evaluation will be through the final document delivered and the oral presentation (in the case of virtual students could be done through videoconference or recording the presentation).

**Bibliografia bàsica:**

Virtual campus

**Bibliografia complementària:**

- Projects presented in the recent years. at UdA
- Other projects available on the network
- Guidelines For The Final Year Project Assessment In Engineering
Elena Valderrama, Mercè Rullán, Fermín Sánchez, Jordi Pons, Claudi Mans, Francesc Giné, Laureà
Jiménez, Enric Peig
https://www.fib.upc.edu/sites/fib/files/documents/estudis/tfg-article-guidelines-for-the-final-year-project-assessment-in-engineering-fie2009.pdf (june 2018)
- Any book oriented to project development

**Observacions:**

The subject Bachelor Final Project (BFP, I and II) is an especial subject associated with the fact that is a Project, not a real subject. This means that is mainly "tutorial" oriented. This is particularly true at BFP-II, but in BFP-I it is also very important the group dynamics due to the fact that most of the doubts are common, and then sharing answers and solutions is essential.

## *Competències específiques (3)*

| Codi - Competència específica |
| --- |
| BINFO01 - Planificació i gestió d'aplicacions informàtiques |
| BINFO03 - Aplicació d'una metodologia concreta de l'enginyeria del software a les diferents etapes d'un cicle de vida d'un projecte |
| BINFO15 - Estudi i planificació de projectes |

## *Competències transversals (2)*

| Codi - Competència transversal | Àrea |
| --- | --- |
| UdA09 - Innovació i presa de decisions | Emprenedoria i treball en equip |
| UdA10 - Comunicació i expressió oral i escrita | Comunicació |

## *Continguts (1)*

1. No especific contents for this subject

## *Activitats (5)*

| Codi - Activitat | Descripció | Competències | Percentatge |
|---|---|---|---|
| ACT 1 - Alpha index | Delivery at Forum of the first index | BINFO15, UdA09, UdA10 | 5,00% |
| ACT 2 - Alpha-2 index and first contents | The student has already adapted index and start working on contents | BINFO15, UdA09, UdA10 | 5,00% |
| ACT 3 - Final alfpha of project | Student already has a complete skeleton of presentation | BINFO15, UdA09, UdA10 | 10,00% |
| ACT 4 - Beta memory | Student has mostly completed the presentation | BINFO15, UdA09, UdA10 | 15,00% |
| ACT 5 - Presentation | Student will deliver a memory doc and will carry out an oral presentation | BINFO15, UdA09, UdA10 | 65,00% |

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|---|---|---|---|
| ACT 1 - Alpha index | Delivery at Forum of the first index | BINFO15, UdA09, UdA10 | |
| ACT 2 - Alpha-2 index and first contents | The student has already adapted index and start working on contents | | |