UAB
Universitat Autònoma de Barcelona

2022/2023

Bachelors Degree Final Project

Code: 106548
ECTS Credits: 15

Degree	Type	Year	Semester
2501233 Aeronautical Management	OB	4	0

Contact

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Use of Languages

Principal working language: catalan (cat)

Some groups entirely in English: Yes

Some groups entirely in Catalan: Yes

Some groups entirely in Spanish: Yes

Other comments on languages

The Bachelors Degree Final Project can be written in Catalan, Spanish or English

Prerequisites

Note: The contents of this guide are based on the regulations for the Final Degree Project in Aeronautical Management, available on the degree's website. In case of conflict, the regulations prevail over the teaching guide.

To complete the Final Project you must have passed 160 credits of the degree (2/3) and all the subjects of the first course must have been passed.

Objectives and Contextualisation

The final degree project is an autonomous academic work whose overall objective is to deepen the analysis of some aspect of the degree. The work is expected to serve to:

- To develop some question of interest relative to the contents of the subjects studied, linking it with the existing academic debates;
- Apply the criteria and techniques learned in the subjects of a methodological nature, either to carry out their own analysis or to evaluate the other authors.

The main objectives of the Final Degree Project are:

- Apply the skills acquired during the studies to carry out a project in aeronautical management environments.
- Learn to develop a coherent project, clear, and with interesting results.
- Learn to document, structure and write a project
- (Optional) Learn how to write a scientific article and send it for possible publication in a journal or in proceedings of international congresses.

Competences

- Act ethically and professionally.

- Communication.
- Identify, develop and maintain the necessary resources to meet the tactical and operative needs inherent to air transport activities.
- Personal attitude.
- Personal work habits.
- Thinking skills.

Learning Outcomes

1. Adapt to unexpected circumstances.
2. Communicate knowledge and findings efficiently, both orally and in writing, both in professional situations and with a non-expert audience.
3. Critically assess the work done.
4. Develop critical thought and reasoning.
5. Develop curiosity and creativity.
6. Develop independent learning strategies.
7. Develop systemic thinking.
8. Develop the ability to analyse, synthesise and plan ahead.
9. Generate innovative and competitive proposals in professional practice.
10. Make decisions.
11. Make efficient use of ICT in communicating ideas and results.
12. Manage time and available resources. Work in an organised manner.
13. Plan and execute a project to develop a simple sub-system within the sector.
14. Prevent and solve problems.
15. Take on the social, ethical and professional responsibilities deriving from professional practice.
16. Work independently.

Content

Disclaimer: This is an automatic translate not fully revised. In case of discrepancies, the guides in Catalan and Spanish prevail over this. Our apologies for the incorrect use of some terms

1. Introduction

The contents associated with the Final Degree Project (TFG) will depend on its subject matter and scope. There will be three basic types of projects:

- Projects offered by professors of the degree.
- Projects developed in collaboration with companies in the sector to respond to a specific need.
- Projects on proposals made by the student.

In the latter case, the student will have to send the following information to the coordinator:

1. A brief summary of the idea/topic, the objectives and scope and a scheme with the bibliography.
2. At the discretion of the student, the professor(s) that seems most appropriate for supervision

The maximum extension of the TFG (including annexes and bibliography) is 20,000 words.

Exceptionally, end-of-grade projects may be developed in small groups of two or three students. In these cases, in the training activities, the transversal competences of the CT3 group (Teamwork) would be additionally worked on. In any case, the evaluation will be individual.

2. The phases of preparation of an academic work

In the preparation of any academic work, the following tasks must be distinguished:

- choice and delimitation of the theme and objectives
- the search of sources and bibliography: read what has been written

- elaboration of the structure: orderthe ideas
- conceptual clarity, analysis and argumentation
- writing of drafts and the final version
- care of formal presentation

Choice and delimitation of the theme and objectives

It is not always an easy or automatic process. Usually one begins by maturing several possibilities that, in this first phase, are usually too broad to be addressed in a single job. Therefore, we must define the object of study as one goes into the chosen field. To define theobject of the work, it is convenient to identify the different aspects and facets of this first topic that interests us. TFG have to focus on a specific question.

Search sources and bibliography: read what has been written

The first step to obtaining information about a topic is to carry out a bibliographic search in the library, through the computer catalogue. For which you have to select several keywords, which are entered in the search program to provide us with a list of the written works on this topic. If you know the name of some author who has worked on this topic, you can perform a search by author.

It is advisable to consult in the first instance the most general and most recent bibliography and then to limit it according to interest. A common practice to find bibliography on a subject is to resort to the technique of "pulling the thread", consulting the authors and the works that in turn cite the authors we read. In this way, sometimes enough to find a couple of good references on a topic (especially if they are recent), because they will appear cited other previous works on the same issue.

The bibliography serves different purposes in the realization of the works. In the first place, consulting the works of other authors allows us to narrow down the subject matter of the study and define our question or question for the TFG. It also provides us with information about the way this topic has been studied before: concepts used, proportionate explanations, theoretical approaches used and applied methods of analysis. In addition, in the works that we consult we can find interesting data and arguments to support the affirmations we make in the works.

A fundamental and innovative theoretical contribution is not expected from the TFG. On the other hand, it is expected that a knowledge of the state of the art of literature will be demonstrated on the chosen topic, for which it is fundamental, obviously, to have read.

Elaboration of the work structure: order the ideas

It is difficult to give general guidelines to determine the structure of an academic document since it largely depends on the topic and the author's preferences. There is always more than one possible structure, so it is up to the author to assess the advantages and disadvantages of each option. It is common to modify the structure of work as progress is made in its execution. But it is essential to start from an initial structure.

The structure of a work is reflected in the epigraphs and sub-headings in which the exhibition is ordered. To move forward in its development, it is convenient to make several schemes in which the most relevant aspects of the subject in question will be decided, which will become epigraphs. Within each epigraph, different issues that constitute the sub-sections or sections can be distinguished in turn. To guide the reader it is advisable to number the different parts of the structure.

In addition to the central core of the work, the structure of which varies depending on the topic of study, there are two parts that must always be included: the introduction and the conclusions. In the introduction, the subject is presented and the objectives and scope of the work are stated. You can also briefly describe the structure and the way in which work is developed to achieve these objectives.

The conclusions summarize the main findings or fundamental points of the work. You can also add some reflections to the thread of these most relevant points, which may be a reason for future work.

In general, within each epigraph, an idea is developed per paragraph. Sometimes there is an introductory paragraph in which a fundamental idea is raised and the following serve to develop it. Once again, there are no strict rules, since there are different styles of writing, but it should be kept in mind that the paragraphs come to

have between ten and twenty lines. A work in which each page is a continuum is not admissible. A work with successive paragraphs of two"shopping list" lines or telegram is also not acceptable.

The footnotes can be useful during the writing to make comments or introduce additional information that is not considered essential, or that would overload the main text.

Conceptual clarity, analysis and argumentation

At the document, it must be clear what is the meaning of the terms used, particularly if they are controversial. However, it is not a good idea to articulate a TFG exclusively around a conceptual debate. It is not a matter of creating new definitions, but of knowing what there are, and to the extent possible, adopting the existing ones in order to advance the arguments with clarity. From the reading, the reflection, and in his case the analysis of the data that we have, we will develop the content of each one of the epigraphs and the fundamental ideas that we want to sustain. It is imperative that our statements are supported by data and/or solid arguments from a methodological approach.

Drafts and final version

To do a good job you usually have to write several drafts until you reach the final version. In these successive versions decisions are made regarding the location of some information, assigning it to one or another heading, and you can even vary the structure of the work. In addition, in this process, the writing is improved, so that the ideas of the work can be transmitted in an optimal way. Do not consider thewriting of the work as a superficial aspect, since the words are the vehicle of the ideas that we transmit. What is judged when reading a TFG is what emerges from its reading and therefore it is advisable to take maximum care of the writing.

Reference and comment must be made on the information contained in tables, figures, and graphs. If it is additional information or context, and it is not considered necessary to comment on them, the tables, figures and graphs should be placed in an appendix or annexe to thework. Sometimes you can make summary tables of the findings or the analysis scheme. These tables are not a substitute for the explanation of the text but are used to complete and transmit the author's ideas better, giving an overview.

The style of writing depends logically on each person. However, in general terms, it is advisable to limit poetic licenses to the maximum and use a style that is as neutral, impersonal and clear as possible. The most personal styles are suitable for other areas, but not for academic work.

In the writing, bibliographic citations must be taken into account. This Guide provides indications on how to cite different types of documents and bibliographical sources. In an academic document you have to identify and recognize the sources when:

- exact passages of the work of another author are cited (using quotation marks);
- passages of the work of another author are summarized;
- use data, methods or information contained in other works; or
- Use ideas or content developed previously by other authors.

3. Formal presentation criteria

In the elaboration of any work it is essential to keep in mind the following formal aspects:

- the papers are presented typed, bound (without clips), and with all their pages numbered;
- on the cover, the surnames and name of the author and the tutor must be clearly indicated, date, title, as well as the title of the document;
- after the cover the supervision sheet should be included and then an index;
- the tables, figures, tables and graphs that are incorporated should be listed, titled and with sources;
- Spelling should be checked and several readings of the final version should be made to detect errors;
- At the end of the document, a list of the bibliography and other sources used for its elaboration must be included.

It is very important to take care of the general formal presentation. This does not imply using high-quality paper (recycled paper is perfectly valid), nor using seven different colours (saving in the case of graphics the reading of which is facilitated by the use of colours). It is important to use homogeneous styles to clearly identify epigraphs, sub-plots, notes, and so on.

These aspects are essential conditions for the TFG to be evaluated. Therefore, TFG with formal defects will not be evaluated.

4. Appointments, bibliography and plagiarism

Each time you take an idea or information that you have not produced yourself, you must cite its origin. This practice is essential and fundamental for two reasons:

- the honest student or researcher recognizes the ideas that are not his; otherwise, I would be committing plagiarism.
- offers its readers the possibility of going to the original sources to contrast the information or to complete it.

TFG will not be evaluated if they do not cite bibliographical references in the appropriate manner.

Plagiarism

It is considered plagiarism (http://www.plagiarism.org/):

- present the work of others as their own;
- adopt words or ideas from other authors without due recognition (ie, without citing);
- do not use quotation marks in a literal quote;
- give incorrect information about the true source of an appointment;
- the paraphrasing of a source without mentioning the source (that is, without citing);
- abusive paraphrasing, even if the source is mentioned (that is, the "rehash")

How to quote

You can follow these recommendations or those of any academic journal.

In the text (following the idea or quotation between quotes) a brief reference to the paper is placed, composed by author, year and page or pages from where the reference has been obtained, in parentheses:

(i.e.) Linz distinguishes two phases in the transition process: the first until the approval of the Law for Political Reform and the second until the celebration of the first elections (Linz 1997: 75).

At the end of the work, complete references of all the works cited in alphabetical order of the author's first surname are included as explained below. When the same author has published several things in the same year, these are differentiated by placing a letter next to the year (for example Linz 1997a, Linz 1997b, Linz 1997c, etc.).

Final bibliography

It is advisable to use a bibliographic manager such as Bibtex, Endnote, Refworks, Mendeley or Zotero to ensure a systematic elaboration of the bibliographies. The library provides training on the Refworks program.

The use of Zotero or Mendeley (free software, allows you to download references directly from Firefox/Chrome) is very simple and can be learned autonomously. There are several methods to quote. Whatever the chosen method, it is important to include all the necessary information and have a homogeneous style throughout the entire work. The use of capitals, styles and punctuation is important and must also be homogeneous. It is recommended not to use bold and underlined.

Methodology

1. The role of tutors

Each student will be assigned a tutor among the professors of the degree who will guide the student in a personalized way in the realization of the TFG. The student will have to agree with the tutor a subject to do his Final Degree Project. Students should contact their tutor to arrange the meetings they will hold throughout the semester. It is always advisable for students to send pre-written documents to meetings to their tutors.

Once the subject is agreed upon, the student will make four deliveries during its execution:

1. A Work Plan that will contain the description of the problem, the objectives to be achieved, the methodology, and the basic bibliography.
2. A review of the state of the art on the chosen topic and design a methodology or original model that will serve to solve the considered problem.
3. A section of experiments/development that allows to validate and verify the proposed methodology or solution.
4. The final version of the memory (or, alternatively, of the scientific article), as well as the corresponding powerpoint and, where appropriate, the associated code.

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: Supervised			
Project Plan preparation	16	0.64	2, 7, 4, 11, 12, 13, 14
Validation and verification of the methodology or model	22	0.88	1, 15, 3, 7, 8, 5, 4, 9, 12, 10
Type: Autonomous			
Development of the state of the art and of an original methodology	226	9.04	1, 7, 6, 8, 5, 4, 12, 10, 14, 16
Writing of memory (or a scientific paper) and material for the defense	110	4.4	1, 15, 3, 2, 7, 6, 8, 5, 4, 11, 9, 12, 13, 10, 14, 16

Assessment

FINAL DEGREE PROJECT ASSESSMENT

The evaluation of the Final Degree Project will be carried out by the director and a committee. The director will evaluate and evaluate the work done during the course, the objectives achieved and the final result of the Final Degree Project. Once qualified by the director, it will be considered as presented in the subject for all academic purposes. The evaluation committee will assess the report, the presentation and other general aspects such as the difficulty, originality and level achieved in the work.

EVALUATION COMMISSION CRITERIA

The maximum grade will be 10 points and can be provided with a single decimal. These points are distributed as follows:

- Director's assessment: maximum of 4 points (in no case will the exhibition or the report be evaluated here). The principal will evaluate and evaluate the student's work during the course, the objectives achieved and the final result. The following aspects will be taken into account, among others: student attitude, interest, organization and planning, ability to understand, rigor, ability to solve problems, degree of innovation, ..
- Evaluation committee assessment: 6 points

> Presentation: maximum 2 points. Please note that the student has a maximum of 20 minutes for the presentation. After this time, the presentation can be terminated. It will be appreciated that a real demonstration is made, whenever possible, if the project involves a SW or HW development. The following aspects will be taken into account, among others: quality and balance in the exhibition, agility and exhibition safety, use of the support material, quality of the elaborated material, explanation and technical justification, rigor in the answers, .. .
>
> Report and annexes: maximum 2 points. The following aspects will be taken into account, among others: follow-up of the structure, capacity for synthesis (it is recommended that the memory has between 50 and75 pages), clarity and argumentative balance, linguistic and lexical correction, ...
>
> Content, level, difficulty: maximum 2 points.

The notes of the evaluation committee will be given unanimously and not individually.

If the student does not make the presentation of the Final Degree Project on the day and time that has been cited and there are no exceptional reasons that prevent it, the evaluation committee's grade will be zero (of the 6 possible).

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Content and difficulty	20%	0.34	0.01	1, 15, 3, 7, 8, 5, 4, 9, 10, 14
Director assessment	40%	0	0	1, 15, 3, 2, 7, 6, 8, 5, 4, 11, 9, 12, 13, 10, 14, 16
Final Report	20%	0.33	0.01	1, 15, 3, 2, 7, 6, 8, 5, 4, 11, 9, 12, 13, 10, 14, 16
Presentation	20%	0.33	0.01	1, 3, 2, 7, 4, 11, 9, 16

Bibliography

n/a

Software

n/a