

FINAL THESIS PROCEDURE



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1 Scope of application

This procedure implements the provisions of the Final Thesis Regulations of the Terrassa School of Industrial, Aerospace and Audiovisual Engineering (ESEIAAT), approved by the Standing Committee (meeting no. 21) on 13 December 2017. It applies to all bachelor's and master's degrees managed by the ESEIAAT.

The term “final thesis” refers to both bachelor's and master's theses.

2 Proposed final thesis titles

Thesis titles proposed by academic staff attached to the ESEIAAT can be found at: <https://eseiaat.upc.edu/ca/estudis/treballs-fi-destudis/acces-tfe>.

Proposed ESEIAAT final theses must include at least the following information:

- Title
- Degree for which the thesis title is offered
- Type: Study or design
- Name of the thesis supervisor
- Name of the co-supervisor (if applicable)
- Objectives
- Description of the work to be carried out
- Expected workload (normally 25 hours for each ECTS credit in the curriculum).

When a thesis arrives at a solution that makes it possible to clearly identify (by means of a technical sheet) the characteristics of an element, component, piece of equipment or system, it will be considered a **design**, with a greater or lesser degree of depth (basic design or detailed design). A **design** can therefore be defined as a thesis that focuses on **designing or implementing a device, installation or system** in a field of engineering specific to the degree.

A **study** is defined as a thesis that involves **analysis, discussion, evaluation of alternatives and assessment of results with respect to aspects of design, planning, production, management, operation of equipment, systems, services, etc.** related to a field of engineering specific to the degree.

Generally speaking, a study involves more extensive and broader work, whereas a design involves less extensive but more in-depth work in an engineering field.

In view of the type of bachelor's and master's degree curricula taught at the ESEIAAT, final theses should preferably involve the development of a design.

IMPORTANT. Master's thesis titles may only be proposed by PhD-holding professors attached to the ESEIAAT. Professors who do not hold doctoral degrees may co-supervise master's theses.

IMPORTANT. Final thesis titles and the assignment of thesis supervisors remain in effect for one year. After this period has elapsed, the student must request the title again, in which case they may opt to continue with the same thesis supervisor. Alternatively, the student may change the title and thesis supervisor if appropriate.

3 Final thesis content

Final theses must include the following documents.

- **Report:** See details in the next point.
- **Budget:** The budget should include the cost of carrying out the work (in the case of studies) or the cost of the proposed solution (in the case of designs).

Where appropriate, final theses may also include the following documents.

- **Annexes:** Any additional information considered necessary (usually including calculations, a general description of the technologies applied and additional technical information).
- **Drawings:** Graphical representations of installations, devices, processes or systems related to the thesis.
- **Terms of reference (TOR), technical sheets (TS):** A document that sets out all the technical, financial and legal clauses and conditions for executing the design. Required if the solution proposed includes the specification or design of specific elements, components, equipment or systems.

4 Structure of the Report

In general, the Report of a final thesis should be structured as follows.

- **Cover:** See Annex I for the standard format.
- **Abstract:** A short text (250 to 500 words) in which the content and nature of the work is described, focusing particularly on the objectives, methods, results and conclusions of the thesis.
- **Table of contents:** This must include the headings of all sections and subdivisions in the order in which they appear in the text, showing the page number on which each starts.
- **List of tables:** The titles and numbers of all tables included, in the order in which they appear in the text.
- **List of figures:** The titles and numbers of all figures included, in the order in which they appear in the text.
- **List of abbreviations / Glossary** (where appropriate)
- **INTRODUCTION.** This section must include the following:
 - **Object:** The final result that is to be achieved.
 - **Scope:** Work packages and deliverables required to arrive at the solution.
 - **Requirements:** Or basic specifications. Limitations of the solution proposed.
 - **Rationale:** A broad overview of the need for the work, which is then considered from a more specific perspective. The aim is to focus and contextualise the thesis.
- **MAIN BODY.** This section must include the following:
 - **Background and/or review of the state of the art** (where appropriate): The current situation with respect to the topic of study.
 - **Methodology:** The steps to be followed to achieve the objectives of the thesis, including the techniques and tools necessary to solve the problem.
 - **Planning and decision making on alternative solutions.**
 - **Discussion of the solution(s).**



- SUMMARY OF RESULTS.

- **Budget summary and/or economic feasibility study** (as appropriate).
- **Analysis and assessment of environmental and social implications** (where appropriate).
- **Conclusions and recommendations for further work:** This section should present a final synthesis based on interpretation of the results obtained. Conclusions are generally brief and must be directly related to the objectives of the thesis.
- **Planning and scheduling of the proposed further work.**
- **List of bibliographic references and regulations applied:** A list of the documents consulted and cited throughout the thesis. Information on recommended practices with respect to citations and how to generate bibliographic references can be found at this address: <https://biblioteca.upc.edu/investigadors/citar-elaborar-bibliografia>

The format of each of these documents is free, but a **template for the Report** is provided in the Annex VI.

Students should check the spelling and grammar of all final thesis documents, use the International System of Units (SI) and a consistent number of decimal places, and identify the axes of graphs included in the text.

The length of the core text of the final thesis should not exceed a maximum of 60-70 pages.

5 Final thesis procedures

Completing a final thesis involves the following stages:

- Assignment of a title / Selection of a thesis supervisor
- Enrolment for the final thesis
- Preparing and writing the thesis
- Submission of the thesis
- Submission and defence

5.1 Assignment of a title / Selection of a thesis supervisor

Students may choose a title proposed by an academic staff member attached to the ESEIAAT or propose their own by contacting a professor who is willing to supervise their thesis.

The general procedure for proposing and assigning final thesis titles comprises the following stages:

- A **professor** affiliated with the ESEIAAT **enters the title and other required details** (see point 2) on the ESEIAAT intranet for proposed final thesis titles and **submits the proposed title for review**.
- The ESEIAAT **final thesis coordinator** verifies that the proposed topic meets all of the requirements to be a final thesis and **makes it public**. The proposed title is automatically made visible to ESEIAAT students on the intranet for proposed final thesis titles.
- **Students** interested in a particular final thesis title **contact the professor** who proposed it.



- Once it has been agreed that a student will complete a particular final thesis, the **student requests** that title via the intranet for proposed final thesis titles.
- The **professor accepts the request**.
- The **student accepts the assignment of the title**.

5.2 Enrolment for the final thesis

Once a student has been assigned a title, they can enrol for the final thesis.

Students must enrol for the final thesis during the ordinary enrolment period, generally along with the other subjects in the curriculum that they have not yet passed.

EXCEPTION: Exceptionally, students may register for the bachelor's thesis if they are unable to enrol for a minimum of 18 ECTS credits for subjects taught that semester.

5.3 Preparing and writing the final thesis

Students prepare and write their final thesis under the direction of their thesis supervisor. Students and thesis supervisors can use the ATENEA–TFE platform (<https://eseiaat.upc.edu/ca/estudis/treballs-fi-destudis/diposit-on-line>) to communicate and/or share documents related to the thesis. They may also use any other form of communication they consider appropriate.

The thesis supervisor and the student will hold face-to-face or remote meetings as necessary to ensure that the student is making good progress on their final thesis and so that the supervisor can provide guidance and monitor the work being done.

In the case of **bachelor's theses**, **students** must attend a **face-to-face training/information session**. In addition, the final thesis coordinator will provide online monitoring to deal with formal issues related to the thesis, monitor progress and help ensure that the thesis is completed on time. These sessions include:

- Session 1 (face-to-face) – content and structure of the bachelor's thesis, semester calendar, delivery of progress reports, etc.
- Session 2 (online) – Hand-in of the project charter. (see Annex VII. **Project Charter Template**).
- Sessions 3, 4 and 5 (online) – Monitoring of progress and discussion of any difficulties encountered.

Once a final thesis has been completed, the **student** must complete the **quality checklist** (see Annex II).

If the thesis is **confidential** and cannot be published in open access, the **final thesis supervisor** must complete and sign a **final thesis confidentiality statement** (see Annex III).

In the case of **final theses completed at companies** with which there is no educational cooperation agreement in place, a specific document must be completed and signed (see Annex IV).

5.4 Final thesis submission

To **formally submit** a final thesis, **students** must upload the thesis documents via the ATENEA-TFE platform (<https://eseiaat.upc.edu/ca/estudis/treballs-fi-destudis/diposit-on-line>).

The following documents must be uploaded:

- Documents that are an integral part of the final thesis (**report, budget, and, where applicable, drawings, appendices and terms of reference**).
- The **quality checklist**.

When submitting the final thesis, the student must declare that the work is original and the sources consulted are cited in the bibliography by clicking on the corresponding "checkbox".

Each document must be uploaded separately. Only DOC, DOCX and PDF files (formats compatible with the URKUND plagiarism detection software) are permitted.

Once the student has uploaded all the final thesis documents via the ATENEA-final theses platform, the **thesis supervisor** can **approve the documents** and make changes to the student's self-assessment report where appropriate.

In the case of master's theses, the **supervisor** must complete the **report of the final thesis supervisor** (Annex V) and submit it to the head of academic management for final theses (tribunals.eseiaat@upc.edu).

IMPORTANT.. The examination committee for the thesis defence may only be convened once the documents submitted have been approved.

5.5 Final thesis defence

Once a final thesis has been submitted and approved, the **student** will be sent an **e-mail defence notification** indicating the date, time and location of the defence and the composition of the examination committee. The notification will be sent **at least three working days before the defence** is to take place, within the period specified in the academic calendar.

If an examiner is absent when the defence is scheduled to take place, the ESEIAAT may, as a matter of urgency, appoint a substitute. Exceptionally, a final thesis examination committee may be convened with only two members present.

Students have a maximum of 20 minutes to defend their thesis, after which each member of the committee may ask the student to give any explanations/clarifications they consider necessary.

IMPORTANT. In the case of master's theses, students may only undertake the defence when they have completed all of the subjects of the degree.

6 Final theses for double bachelor's/master's degrees taught at the ESEIAAT

By default, final theses completed within the framework of a double degree must be defended as two separate theses, with independent examination committees. If a student wishes to defend their thesis in a single session, this arrangement must be requested via the e-Secretaria.

When a student taking an ESEIAAT double degree requests that they be allowed to defend their thesis in a single session, the following procedure will apply:

- The thesis must have a single title, agreed with the two professors involved, that reflects competencies for both degrees.
- The student must enrol for the thesis twice but will defend their work in a single session before a single examination committee. Two official examination result documents will be issued.

In the case of bachelor's theses, the examination committee will be made up of the two professors who supervised the thesis and two members chosen by lot. One supervisor will serve as chair and the other as secretary for one assessment report, and vice-versa for the other assessment report.

In the case of master's theses, the examination committee will be made up of a chair and secretary appointed by the School and two members chosen by lot.

The two final theses required for a double degree may not be completed while on a period of study abroad.

7 Other helpful resources

Other helpful resources for producing a good final thesis can be found at:

<https://biblioteca.upc.edu/estudiants/6-passos-que-teu-tfg/tfm-sigui-exit> (general resources for producing a final thesis).

<https://biblioteca.upc.edu/investigadors/citar-elaborar-bibliografia> (resources for correct citation of bibliographic references).

Finally, when appropriate, we recommend that you take advantage of the opportunity to relate your final thesis to one or more of the 17 United Nations Sustainable Development Goals (SDGs):

<https://www.un.org/sustainabledevelopment/>

