Lascala
Erasmus Mundus Master

Master thesis project

Charter of common rules for the Large Scale Lasers and Accelerators (Lascala) programme

November 2026 version

This charter is addressed to students and to the students' thesis supervisor at their university, the supervisor at the host institution (lab or research facility) and the examination jury within the Lascala programme. It sets the master's thesis project's goals, the guidelines for writing the dissertation, as well as the terms of the defense procedure.

In addition to this charter, further local guidelines, requirements, and procedures might occur at the partner institutions, but they should not contradict or be in conflict with what is outlined below.

The master's thesis project is an essential component of the students' training, both from the point of view of training and skill assessment. The master's thesis project takes place over 5 months minimum and 6 months maximum, during the fourth semester, and is worth 30 ECTS. The starting date will depend on the track chosen by the student, from mid-January to mid-March and will end with the thesis defense, at the latest, end of August. It can be carried out at a research lab of the associated partner institutions or companies that have submitted a thesis proposal/internship offer on the Lascala website or in another place provided the professor and Consortium agrees. In any case, the subject must be validated by the professors in charge of the Lascala program. If the master's thesis project is carried out at an external partner, the conditions of the master's thesis project should be specified in a **cooperation agreement**, signed by the student, the host institution, and the **responsible partner university, which is part of the Lascala consortium**.

Aim

The aim of the thesis is for the student to develop and demonstrate the requisite knowledge to work independently in the main fields of the Lascala programme. The thesis work must include personal and original research or innovation.

Learning outcomes

Knowledge and understanding
In order for the thesis to be approved, the student shall demonstrate a high degree of research methodology and specialized knowledge in the main field of study.

Competences and skills
In order for the thesis to be approved, the student shall:

- demonstrate the ability to holistically, critically, autonomously and creatively identify, formulate and deal with complex issues,
- demonstrate the ability to participate in research and development work and so contribute to the formation of knowledge,
- demonstrate the ability to plan and, using scientific and other appropriate methods, undertake advanced tasks within predetermined frames,
- demonstrate the ability to critically and systematically integrate knowledge acquired in key and advanced courses of the programme,
- demonstrate the ability in speech and writing at master's level to report clearly and discuss his/her conclusions and the knowledge and arguments on which they are based, and
- independently be able to identify relevant information sources, carry out information searches, assess the relevance of information and apply correct citation techniques.

Judgment and approach
In order for the thesis to be approved, the student shall demonstrate the ability to assess their own thesis regarding relevant scientific, societal, and ethical aspects.

Supervision

Supervisor at the host university
The **supervisor** is responsible for mentoring and supporting the student during the master's thesis project. They will ensure that the thesis work and internship runs smoothly and progress regularly. The supervisor is the guarantor of compliance with the educational stipulations of this charter within the host university and, if applicable, the cooperation agreement (associated partners outside of the consortium) as well as the scope of the thesis project, ensuring the possibility for the student to complete the thesis within the given time frames. The maximum number of students per supervisor is set at 2 within the host organization, to ensure that the trainee receives quality supervision that enables the acquisition of skills and competences.

Additional supervisor/referent teacher from one of the partner institutions, if the thesis project is performed at an associated partner outside of the consortium

If the thesis project is performed at an associated partner institution or at another institution that has been approved by Lascala, an additional supervisor/referent will be appointed from that institution. This supervisor is responsible for the pedagogical follow-up of the thesis work; he/she will follow the student on several occasions; he/she may propose a redefinition of the student's tasks in relation with the host organization, if necessary.

The student

The student commits to respect the pace and plan of the work decided with his/her supervisor. He/she must inform all supervisors of the progress of his/her work and of any difficulties encountered.

Written thesis

The written thesis or report is to describe the project and its findings. It should include a description of the problem to solve and how it is connected within the broader scientific context. It should include the scientific foundation and proven experience on which the project has been based, the main sources of information, and the project's contribution to the advancement of knowledge. The report should also include a general description of the approach and choice of method.

Excluding the cover page, summary pages and appendices, the **final written thesis** should be **50 pages minimum and up to 70 pages maximum** (including figures, excluding appendices and references), on which the evaluation will be made. Appendices should be kept to a reasonable size and not exceed 30 pages. The thesis shall be written **in English and on a LaTeX template provided by the Lascala consortium**. The quality of expression and presentation will be taken into account.

The final written thesis must include:

- a title page (please follow the model cover page provided)
- a half-page summary in English
- a table of contents
- an introduction providing the context and the purpose of the work
- a body text, highlighting specifically the student's personal work
- a conclusion
- a bibliography (citing all sources and references used)
- appendices (< 30 pages) for more technical parts that are not essential to the understanding of the main body of the thesis
- declaration that there is no plagiarism (as an appendix)
- LRAP for students attached to Lund University : Lund Reports of Atomic Physics – number

Additional local requirements might occur.

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Document requirements and instructions for submission

Document download process:
Use the **LateX template** and submit the document in PDF **format**, possibly zipped, with a name respecting the following format: **Academicyear_LastName_FirstName_ThesisTitle.pdf** and upload it. Its total size should be less than 11 MB (so do not include high resolution images such as those coming out of a digital camera).

Deadline for thesis submission:
Each student must submit their project written thesis **by email** to master.lascala@university-paris-saclay.fr . This report **must have been approved** by the project supervisor. The final deadline will be decided between the student and the supervisor.

Evaluation process, assessment, and marks

Since the Erasmus Mundus Joint Master Lascala awards multiple degrees, it is **possible** that a **local evaluation processe** takes place, but **all students enrolled in the Lascala programme** will be subject to **the evaluation process described below at minimum**.

Assessment of supervisor
The **thesis supervisor** should submit an assessment to the Lascala examining board by the end of August. The supervisor shall know the student beforehand.

Assessment of the opponent (local examiner)
The **thesis opponent** is a professor who is not a consortium coordinator. The opponent should submit an assessment to the Lascala examining board by the end of August. The opponent shall not work in the same project as the student.

Oral defense
Each student will present and defend his/her thesis **in front of a jury**. The precise date, usually **at the end of August**, is decided among the management board of the programme. If possible, all the defenses should be held at the same place for all the students.

Oral defense organization
Oral defenses are **public** and include a **15-minute of oral presentation** by the student and **15 minutes of questions** by the jury. The supervisors are invited to attend (attending a defense remotely is possible for supervisors). The students of the incoming class will be able to attend the defense (possibly by video conference). For certain situations, a remote defense by video conference may be considered. This will be decided case by case.

Jury composition

The **jury** should be composed of a minimum of 7 people : the **4 academic coordinators of the Lascala programme** and **at least 3 professors or experts in the industrial field**. The opponent can be present by videoconference to ask questions.

The **deliberations** of the jury are **private**. During the defense deliberations, the supervisor shall not vote.

Assessment and marks

The written thesis and the oral defense are both part of the examination of the master's project thesis. The assessed components should demonstrate that the student has reached the learning outcomes indicated earlier in this document and should be able to begin a PhD in the related field. It should be noted that if the student submit their thesis later than the agreed deadline with no justification, points will be taken off the final mark.

The **final mark** given to the course will be **the result of a discussion by the jury** based on:

- the **assessment by the supervisor + the opponent** to the **written work** carried out by the student
- the **mark assigned by the evaluation jury** to the student's **presentation and answers to the questions** of the panel.

The final mark will either be :

A : Excellent

B : Very Good

C : Good

D : Satisfactory

E : Sufficient

F : Fail

It will then be **converted** into each of the universities' grading system for the student to receive their diploma.