

Guidelines for student thesis at the Composite Materials and Adaptive Structures Lab

General Information

The duration of bachelor and semester theses is 14 weeks. In general, the start is the first day of the semester and the end the last day of the semester. In exceptional cases, the start date can be adjusted in agreement with Prof. Ermanni and the responsible advisor.

In case of end-of-semester examinations, bachelor theses may be submitted one week after the end of the semester in agreement with Prof. Ermanni and the responsible advisor.

In general, the CMASLab encourages conducting Master thesis inside our lab. Furthermore, the possibility of conduction Master theses outside our lab exists in agreement with Prof. Ermanni. In this case it is required that a very good thesis already has been conducted at our lab.

The duration of Master theses is six months. An extension of the period can be allowed in exceptional cases in agreement with Prof. Ermanni and the responsible advisor.

Abortion of the thesis is possible only within the first three weeks. Afterwards the thesis must be finished and submitted.

In the general task description following dates must be specified:

- Start of work
- Submission of work
- Intermediate presentation
- Final presentation

Registration procedure within the first two weeks of the on-going semester:

1. Task description – signed by all three parties (Prof. Ermanni, advisor, student)
2. Scan from advisor
3. Register in MyStudies and upload the signed task description

Safety

All students working in the labs must have a general introduction to the topic „Working safety“. The date of the safety instruction will be announced. **Afterwards an introduction to the particular machines that need to be used will be given by the responsible person.**

Please consider the information on the topics health, accident and liability insurance, which can be accessed under

https://www.ethz.ch/content/dam/ethz/main/education/finanzielles/versicherungen/de_versicherungen_insurances.pdf

Presentations

All student theses need to be presented internally at two dates:

In the intermediate presentation you show your idea of the conduction of the work. In particular, the task description and the proposed approach to solve the problem need to be presented.

The **final master presentations** take place two times per year (March and September). The **final semester and bachelor presentations** take place in the second last week of the semester.

The final presentations of the semester, bachelor and master theses are considered in the grading of the work.

Submission

The submission of all documents has to be carried out until 5pm of the last day of the semester if not agreed otherwise.

Following documents need to be provided:

- **Two bound reports** (one copy for library responsible Jacopo Cossu and one copy for the advisor). The **original version** of the signed task description **and** the **original** signed plagiarism declaration must be included in the **copy for the library**. A scanned version of the task description **and** a signed plagiarism declaration must be included in the **copy for the advisor**. The **title page** must contain the individual reference number of the CMASLab. You can find your reference number “xx-xxx” by typing your last name in the “author” field of the CMASLab library section <http://www.structures.ethz.ch/library.html> and selecting your thesis subject. If your thesis is not yet registered, please contact Jacopo Cossu. A copy of the title page must be handed in together with the report. For the report, the **official CMASLab template (Word or Latex)** has to be used.
- **All relevant data** of the thesis, the **presentation (in Powerpoint and pdf)** and the **report, including scanned signed plagiarism and task agreement**, (in **Word / Latex and pdf**) should be transferred in a zipped file to the advisor and **the library responsible (cossuj@ethz.ch) via Polybox**. The final file size should be ideally <10GB, any redundant data like multiple experiment runs that don't necessary contribute to the understanding of the results can be left out or compressed using efficient file formats for large videos or picture collections.
- **The individual reference number and the author** must be included in the filename in the following order: xx-xxx-Surname-First_Name
- Report and final presentation in the PDF/WORD/Powerpoint format must have the following description:
 - xx-xxx-Surname-Forename-report.pdf
 - xx-xxx-Surname-Forename-praes.pdf
(xxx = Reference-Nr.)
- In the **technical allocation tick-list** (at the end of this document) all fields relevant for the thesis subject should be marked.

The check list must be reviewed and signed by the responsible advisor for final submission of the thesis.

ATTENTION: Final submission ONLY with signed check list!

Supervision

We obligate ourselves to supervise all projects in all conscience. If you are not satisfied with the supervision, we ask you to seek the necessary dialogue with your advisor and – in urgent cases – to contact Prof. Ermanni. It is recommended to agree on a weekly appointment with the supervisor to discuss the progress and problems of the work.

Infrastructure

We provide the necessary infrastructure and a working place with PCs. **We ask you to treat the equipment with care and to keep you working place clean. The responsible advisors are asked to check this.** Login at the PC is provided by the standard n.ethz username and password.

The rooms LEE O 230 and CLA E 32.1 are reserved for master students. Exceptions are possible according to prior agreement. Master students are asked to contact their advisor in time to be assigned to a working space.

Concerning keys: If necessary, keys can be ordered by the advisor at the secretary of the lab.

Students that need **LINUX platforms** for their work are asked to contact the **IT responsible** for the installation of the user account.

Grading

Following criteria are followed for the grading of the student theses:

- | | |
|--|------|
| • Creativity: Inventiveness, added intellectual value | 30 % |
| • Quality of results: Competencies, Quality & Scope | 30 % |
| • Work ethics: Organization of the work, Independence, time management | 10 % |
| • Literature Analysis | 10 % |
| • Documentation: Form of the report, organization of data, quality of code | 10 % |
| • Oral presentation | 10 % |

Questions?

Please contact your advisor for any questions coming up!

Questions concerning the guideline form or report & data submission:

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Leonhardstrasse 21
8092 Zurich, Switzerland

Name Student: _____

CMASLab Check - List	Yes	No
Did I read carefully the previous three pages of the guidelines?		
Do I have the reference number? If not, type your last name in the "author" field of the CMASLab library section: http://www.structures.ethz.ch/library.html		
Is the reference number written on the title page of the report?		
Did I read the leaflet for plagiarism and sign the declaration of originality? Include the original and signed plagiarism declaration and the original and signed task description in every printed copy of the report and the digital version of the report! https://www.ethz.ch/studierende/en/studium/leistungskontrollen/plagiate.html		
Did I print and bind (spiral or adhesive) two versions of the report? Did I give one to Jacopo Cossu and one to the advisor?		
Did I give one copy of the title page to Jacopo Cossu?		
Did I convert the report and the presentation to the PDF format?		
Did I include the editable versions of the report and of the presentation?		
Does the report file have the correct name? xx-xxx-Surname-Forename-report.pdf?		
Does the presentation file have the correct name? xx-xxx-Surname-Forename-praes.pdf?		
Did I create a zipped file containing the report (including scanned declaration of originality and task agreement), the presentation and the relevant data?		
Did I transfer the correctly named file (xx-xxx-Surname-Forename) via Polybox to the advisor and Jacopo Cossu?		
Did I write the abstract in German?		
Did I write the abstract in English?		
Did I fill out the CMASLab technical allocation tick-list (at the end of this document) and give it to Jacopo Cossu?		
Is the check list complete? Please give it to Jacopo Cossu.		

Signature Student: _____

Signature Advisor: _____

Place, Date: _____

Place, Date: _____

Library CMAS → tick list

general information

internal author ETH Zürich CMAS yes no

ref. no. of student thesis:

category → tick one

BOOK	books	
TECH	technical report	
PHD	PhD thesis	
STUD	student thesis	

PRO	proceeding	
ART	article	
PRES	presentation	

technical / scientific allocation → multiple ticks possible

general	dictionaries	
	programming & software	
	various	

joining	joining general	
	bonding	
	mechanical joining	
	welding	

design	design general	
	numerical methods	
	general mechanics	
	structural design & analysis	
	structural dynamics	
	optimization	
	lightweight structures	
	integration of functions	
	sandwich structures	
	bionics	
sustainability		

performance & testing	performance & testing general	
	static mechanical	
	fatigue	
	impact & crash	
	fire - smoke - toxicity	
	vibrations & acoustics	
	ageing	
	thermal analysis	
	non destructive testing	
	electrical testing	
	processing behavior	

materials	materials general	
	bio materials	
	fiber reinforced polymers	
	fibers & textiles	
	polymers & matrices	
	sandwich core materials	
	auxiliary materials	
	metals	
	active materials	
	ceramics	

applications	applications general	
	road transport	
	aerospace	
	railways	
	water transport	
	sport goods	
	energy industry	
	machine industry	
	smart / active structures	

composite processes	composite processes general	
	drape / stretch processes	
	flow processes	
	preform processes	
	LCM resin injection processes	
	combined processes	
	composite/metal hybrid processes	
	manufacturing of semi-products	
	trimming	
	tooling	

recycling	recycling general	
	preparation for recycling	
	re-use of products	
	material recycling	
	feedstock recycling	
	energy recovery	
	biological recycling	
	landfill	
	design for recycling	