



SE Master Thesis

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Thesis

GU

- DIT551
- Syllabus:
<http://kursplaner.gu.se/english/DIT551.pdf>
- Pre-requisites
 - 60 hec (or more) must come from courses on advanced level

Chalmers

- DAX05
- Syllabus:
https://www.student.chalmers.se/sp/course?course_id=26067
- Pre-requisites
 - 5Y Master of Science: 225 hec
 - 2Y SE Master: 45 hec within the program

What is expected

- Pull together the **knowledge from your program**
- Including the **methodological** aspects
- Take it a notch further
- By apply it to an (industrially) **relevant** problem
- With **research** interest



Learning objectives

See syllabus for your program

- CTH “contribute to **research** and **development** work, and be able to relate their work to relevant scientific or technical/industrial/architectonic contexts”
- GU “apply the accumulated knowledge and skills to a problem that is interesting from both a **research** and an **industrial** point of view”

Process



Getting
started

Execute the
project

Examination

Getting started

Process





Selecting the topic

- Normal case: **pair of TWO students**
(also from different programs)
- Individual thesis are possible
(but not encouraged)
- Area of **interest**, e.g., previous knowledge and experience

Find a topic 1/2

- Check the **SE wiki page**
<http://wiki.portal.chalmers.se/cse/pmwiki.php/SE/ThesisProjects>
- Thesis proposal from SE faculty
(most cases, in collaboration with industry)

Find a topic 2/2

- Most thesis are in collaboration **with a company**
 - Check the websites of Volvo, Volvo Cars, Ericsson...
- Does company have **academic supervisor** at SE ?
 - If supervisor at other program, thesis might not fit you
- If not, look for one!
 - *Organize a meeting company + academic supervisor*



Academic supervisor

- It's a must to be successful in the next step:

the **proposal writing**

SE proposal

- Proposal structure (see template for more info)
 1. Introduction
 2. Statement of the problem
 3. Purpose of the study
 4. Review of the literature
 5. Research question and/or Hypotheses
 6. Methods and Procedures
 7. Limitations and Delimitations
 8. Significance of the study
 9. References



Also include a mini-plan
(as steps)

SE proposal

- It should display you **understand the problem** (context, related work)
- There must be a **research contribution**
 - Formulation of *research questions* is important

Proposal submission

- **What**

- Thesis proposal in PDF
- Registration forms (one per student)

- **Where**

- master-thesis.cse@chalmers.se

- **When**

- <https://masterthesis.cms.chalmers.se/content/proposal-deadlines>



SP3: Jan 21 (Dec 12)

Proposal evaluation @SE

- Thesis Examiners Group
 - Chair: Riccardo Scandariato
 - Members: Eric Knauss, Regina Hebig, Robert Feldt
Jan-Phillipp Steghöfer
- Two reviewers + group discussion
(< 2 weeks)

Proposal evaluation @SE

Outcome

- **Accept**
 - **Examiner** is assigned and they send you an email. You also get a weird email from the system (it looks like a case status report) – don't worry 😊
 - You get **registered** (it takes weeks!!!)
 - You contact your supervisor for detailed plan (but no planning report needed)

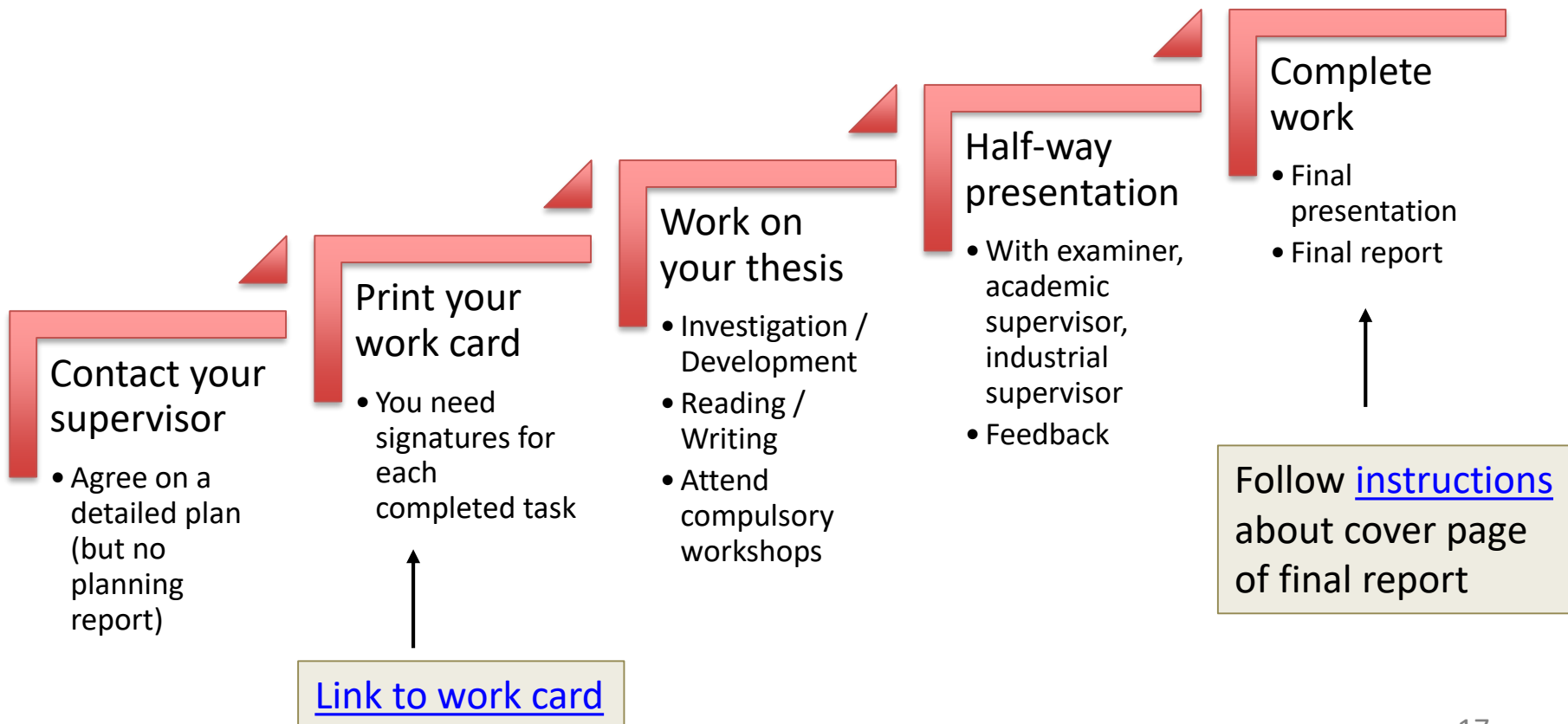
Proposal evaluation @SE

Outcome

- **Revision**
 - Tentative examiner is assigned
 - They mail you a list of **improvements**
 - You have **2 weeks** to send the improved report back to the examiner
 - Final decision is made (accept/reject)
- **Reject**
 - New proposal at next deadline

Execute the project

Process



Mandatory seminars

- Academic writing 1 (fak-språk)
TBD
- Academic writing 2 (fak-språk)
TBD
- Industry Collaboration and Career Planning
November 13 afternoon
- Research Approach (Richard Torkar)
October 16 15:00-17:00

Half-way presentation

- Send the **draft report to examiner** well in advance (1 week)
- **Prepare slides!**
 - Give a proper presentation (good training)
- Explain the objectives of the thesis (give context)
- Show what you have achieved (in relation to the original plan)
- Present an **updated plan** for the future



Thesis report

Language and format

- Thesis report is to be written in **English**
- **Quality of writing** is part of assessment
 - Not just language... but also
 - Start writing on time (no “last minute”)
- Follow the [instructions](#) about cover page

Thesis report

Content

- Your thesis report must *answer the research questions* **clearly** and **explicitly**
- RQs in your proposal
 - RQs may change somewhat during the project



Examination

1. **Supervisor** approves your final report for examination
2. **You** send the final report to **examiner and opponents**
 - Well in advance
(At least a week before the presentation)
3. You book a time slot for presentation **in agreement with examiner** and supervisor
 - <https://masterthesis.cms.chalmers.se/content/book-your-presentation>

Final presentation

- Arrange **opponents** for own examination
 - The presentation **cannot** take place without opposition
 - You do not have to be opponent for the students opposing you
 - 1:1 & 2:2
 - You do not have to be opponent together with you thesis partner
- Questions from the audience
- Questions from the examiner



Examination

After final presentation

- Examiner can accept your final report as is
- Require some improvements (**normal!**)
- Fail you

Evaluation criteria

- **Challenges**
 - Clear formulation of objectives
 - Relevance to master program
- **Context**
 - Mastering the related work
- **Methodology**
 - Scientific principles of the design and evaluation
- **Contribution**
 - Completeness and progress beyond the state of the art
- **Quality of writing**

Examination

Summary of required tasks

- Mandatory Seminars (4)
- Approved half-way presentation
- Audience at examinations (2)
- Opponent at examination (1)
- Present and discuss own work
- Satisfactorily perform required revisions (if any)
- Approved final report

Examiner can ask for
preview of your questions





Grading

- Chalmers
 - Pass/ fail

- GU
 - Pass with distinction/ pass/ fail

Bookmark these these links

- Master Thesis @CSE
 - <https://masterthesis.cms.chalmers.se/content/start>
- Esp. “Forms and templates”
 - <https://masterthesis.cms.chalmers.se/content/forms-and-templates>

Differences @SE

- The proposal template is different
- We evaluate the submissions in Dec/Jan together
- No planning report
- Extra seminar



Questions?

