

# Master's Thesis @ BiRC

November 2020



# What is a Master's thesis?

From the general description of an MSc thesis at ST:

## **Description of qualifications**

For the Master's thesis, the student works independently on an academic issue, on completion of which the graduate can:

- identify, define and formulate an academic issue on a scientific basis.
- define and present testable hypotheses within a subject-related topic.
- independently plan and complete a major academic project using the subject's scientific methodology.
- analyse, critically discuss and put into perspective an academic issue.
- assess, critically analyse and summarise the scientific literature within a defined topic area.
- relay academic results objectively and concisely to a scientific audience.

See <http://students.au.dk> (under bioinformatics “Master's thesis”) for general ST information on how to do this.

Coronavirus: Information for students and staff

STUDENTS.AU.DK

MYSTUDIES.AU.DK → AU.DK FIND MENU

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# Master's thesis

General information and guidance about your thesis writing process

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Please note that there can be requirements that are specific to your degree programme. It is therefore a good idea to familiarise yourself with this and related pages as well as the academic regulations, so you know what is expected of you in relation to your Master's thesis.

Registration for the master's thesis

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Thesis periods and important deadlines

+

Master's thesis contract

+

Group assignments

+

Advice for the thesis process

+

Good advice regarding your thesis process

+

Are you having problems with your master's thesis?

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Who can help?

+

Write to...  
studieservice.nat-tech@au.dk

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Contract generator

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Course Catalogue

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§ Academic Regulations

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Personal data in projects etc.

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Confidentiality agreements at AU

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writing assignments, searching for literature and much more at AU STUDYPEDIA.

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Revised 22.09.2020 - [STUddannelse](#)

# Regarding Group Projects

## **Group assignments**

Master's theses at Science and Technology can be prepared as group assignments. The final oral exam is held as an individual exam that follows the guidelines stated in the course description for Master's theses at Science and Technology. A group can consist of a maximum of three members. Each individual group member must fill out a thesis contract. Please note that the group must be registered correctly if the thesis is submitted digitally.

## **Groups can choose**

1. to prepare a joint report in which each member has equal responsibility for all parts of the report. The final grade for the individual student is the overall grade for the individual oral exam and the entire thesis report.
2. to prepare a report stating who has drawn up the individual parts of the thesis report and has particular responsibility for them. Parts of the report can be prepared jointly. The table of contents in the thesis report must state who is responsible for each individual part of the report. The report's bibliography can be divided into a joint part and a part for each group member. The final grade for the individual student is the overall grade for the individual oral exam, the parts of the thesis report that are prepared jointly, and the parts that can be attributed to the individual examinee.

# Regarding Group Projects

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Working in a group has many benefits. It gives you somebody to discuss all aspects of the project with ...

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2. to prepare a report ... but you should know your group members well enough in advance such that you know that you can work together.

for all parts of the  
the individual oral

# Thesis periods and important deadlines

- You are all doing a **30 ECTS** thesis
- Master's thesis contract must be uploaded **before February 1, 2021**
- Master's thesis project **starts February 1, 2021**
- The exam must be **no later than June 30, 2021**
- Hand in **between June 1 and 15, 2021** depending on exam schedule. Decided by your supervisor
- Handing in late, means failing!

# Master's thesis contract

- The contract is done via <https://kontrakt.nattech.au.dk>
- It consists of information (project title, hand in date, ...), and a **more detailed description** that is attached as a pdf-file. At BiRC this description must contain:
  - **Project description:** 12-15 lines describing the overall aim of the project.
  - **Project goals:** A concise presentation of the project goals/objectives.
  - This is similar to a “PiB contract” that you all know.
- The contract must be done in collaboration with your supervisor. Upon submission it must be approved by your supervisor and me (as head of studies).
- The thesis can be done in a **group of 2-3 students**. If you do this, all group members must make a contract, and the combined amount of work must reflect the group size!



# Good advice regarding your thesis process

- Make an early start on your considerations about the thesis
  - Contact potential supervisors (i.e. BiRC researchers) soon!
- Clarify the formal framework of the thesis
  - This is what you do now ;-)
- Ensure a clear match of expectations with your supervisors (and others)
  - See “Good advice regarding your thesis process” on [www](#) page!
  - Remember that your supervisor is expected to spend ~30 hours on supervision (including meetings, exam etc.) while **it is your “full time job” for an entire semester** (30 ECTS  $\approx$  750 hours) to do the thesis. I.e. 45 hours/week for the entire semester, and an additional 120 hours for exam preparation etc.
  - **It is your project.** Your supervisor is there to guide it, not make it!

# Hand in and exam

- You must via Digital Exam before the agreed upon submission deadline. The typical length of a report is ~50 pages. Longer if you work in a group.
- Exam is **1 hour** and consists of **30 minutes of presentation** by you, and **30 minutes discussion** with the examiners. The presentation is based on a question that you get **one week before the exam**.
- You get a single grade for the exam which reflects the report (~2/3) and the presentation/discussion (~1/3).
- If you do your project in a group, each group member has an individual exam.

# Bits and pieces

- Be careful formulating the project. Keep in mind that being late is not an option!
- Better to formulate a simple, but doable, project that can be extended if you have time, than a complicated project that you must reduce at the last minute.
- Do not formulate a project with too many dependencies on other people's input.
- Be realistic when planning, and keep in mind that time wasted early in the thesis project, is time that you will probably need towards the end of the project.
- Implement a work habit that you can sustain for 4 months.
- Identify problems as early as possible. Be honest towards yourself and your supervisor.
- Expect to work hard! Especially towards the end.

Questions?

# Possible projects

... “Before you can make a thesis contract, and commence your thesis work, you must (of course) chose a topic and a supervisor. The supervisor must be a tenured researcher associated to BiRC, but you can also have one or more co-supervisors. When choosing a thesis topic, it is a good idea to think about the classes and projects that you have done during your Master’s studies, and what kind of work do you like? **Contact potential supervisors as early as possible to discuss your wishes and ideas. Remember that you are always welcome to come by our offices and discuss. You can also ask potential supervisors for examples of thesis’s that they have supervised in order to get a better idea of how a thesis can look.” ...**

<https://birc.au.dk/studies/msc-thesis/>

# Possible projects - Collaborations

You can make your thesis project under the co-supervision of external collaborators.

This year, Lotte Hindhede, who graduated in June 2020, and is now working at AUH with the **Danish Blood Donor Study** with Professor Christian Erikstrup has proposed a number of thesis projects, e.g.:

*Missing data in questionnaires - machine learning*

*Biomarkers as a predictor of smoking and BMI - machine learning*

*Association between CCR5-  $\Delta$ 32 deletion and allergy, asthma and sensitization*

I have sent around their detailed descriptions. Lotte and Christian have offered to visit **BiRC on Friday, December 4**, if any of you are interested.

# Possible projects – Last year

You can see examples of 2020 thesis' at:

<https://www.birc.au.dk/~cstorm/birc-msc/birc-msc.html>