### Master Thesis (60 ECTS)

Title Master Thesis (60 ECTS)

Semester E2023

Master programme in Chemical Biology

Type of activity Experimental Master Thesis

Teaching language English

Study regulation Read about the Master Programme and find the Study Regulations at ruc.dk

Læs mere om uddannelsen og find din studieordning på <u>ruc.dk</u>

#### **REGISTRATION AND STUDY ADMINISTRATIVE**

Registration Tilmelding sker via <u>STADS-Selvbetjening</u> indenfor annonceret

tilmeldingsperiode, som du kan se på <u>Studieadministrationens</u>

<u>hjemmeside</u>

Registration through <u>STADS-Selvbetjening</u> within the announced registration period, as you can see on the <u>Studyadministration</u>

homepage.

Number of participants

ECTS 60

Responsible for the activity

Anders Malmendal (amalm@ruc.dk)

Head of study

Anders Malmendal (amalm@ruc.dk)

Teachers

Study administration

INM Registration & Exams (inm-exams@ruc.dk)

Exam code(s)

U60055

#### ACADEMIC CONTENT

Overall objective

The master thesis is an interdisciplinary thesis based on the academic/professional intersection between the programme's subjects. The student can thus choose to prepare an interdisciplinary Master thesis that covers the entire programme. The exemplary nature of the master thesis ensures that the students acquire knowledge, skills and competences that they can use in a wider context than the master thesis itself. The students are

free to choose the contents of the master thesis within the framework of the study regulation and its objectives. The ability to critically assess the quality of their own efforts and their own knowledge base in relation to a given research question is an important objective of the participatory and problem-oriented thesis work. The process is supported by one or more academic supervisors. The supervisor(s) help to ensure that the thesis work meets the requirements of the study regulation.

In the thesis report, the student must document knowledge and skills in using scientific theories and methods while working with a limited, academic and relevant research question. The student must document skills in analysing, categorising, discussing, arguing, evaluating and reflecting on a scientific basis as well as being able to choose and relate critically to sources, literature, theory and methods used in the master thesis. The master thesis must demonstrate the students' proficiency in communicating about an academic study to colleagues and to demonstrate competences in initiating, managing and completing a long-term academic study and writing process.

# Detailed description of content

The exemplary nature of the master's thesis ensures that the students acquire knowledge, skills and competences that they can use in a wider context than the master's thesis itself. The students are free to choose the contents of the master's thesis within the framework of the study regulation and its objectives. The ability to critically assess the quality of their own efforts and their own knowledge base in relation to a given research question is an important objective of the participatory and problem-oriented thesis work.

#### Course material and Reading list

Students themselves select relevant literature for their project work.

#### Overall plan and expected work effort

#### Master Thesis 60 ECTS / 1620 hours

Master Thesis Seminar: 4 hours
Exam and assessment: 1 hour
Supervision: 35 hours

Report writing: 250 hoursLiterature search: 200 hours

 Practical project work (laboratory, model design, analysis, field work): 1090 hours

• Exam preparation: 40 hours

#### Format

### Evaluation and feedback

All master thesis' processes will include ongoing dialogue-based (oral) evaluation between the students and the supervisor. Both students and supervisors are expected to provide constructive feedback and viewpoints during the process. Feedback concerning the academic content and progression, process and collaboration. When the master thesis is handed in, there will also be an evaluation through a questionnaire in SurveyXact concerning the master thesis process and the master program in general. The Study Board will handle all evaluations. Furthermore, students can, in accordance with RUCs 'feel free to state your views' strategy through their representatives at the study board, send evaluations, comments or insights form their project process to the study board during or after the master thesis process.

Programme

The student must attend the preparatory thesis seminar. Information available on study and moodle.

#### ASSESSMENT

# Overall learning outcomes

- Research-based knowledge of selected subject areas and understanding of and reflection on how one's own thesis research fits into its academic context
- Knowledge of the academic genre and the academic target audience for which the master's thesis is intended
- Proficiency in using and mastering scientific theories and methods while working with a specific, academic and relevant research question
- Proficiency in identifying scientific issues
- Skills in analysing, categorising, discussing, arguing, reflecting and evaluating on a scientific basis
- Skills in critically viewing and selecting scientific sources, literature, theory and methods
- Skills in discussing and participating in academic argumentation
- Skills in writing in accordance with academic text norms and for an academic target group
- Skills in using experimental methods in a research process
- Competences in independently initiating, managing and completing a lengthy academic research and writing process
- Competence to identify and take responsibility for their own professional and written language development and specialisation
- Competence to select, adapt, improve or design experimental methods in problem solving processes, teaching and working environment.

## Form of examination

Master thesis written individually or in a group

Permitted group size: 2-4 students.

The student(s) can choose whether the assessment should be based on solely the written product or on both the written product and the oral exam.

The character limits of the master thesis are:

for 1 student: 48,000-192,000 characters, including spaces. For 2 students: 48,000-192,000 characters, including spaces. For 3 students: 48,000-204,000 characters, including spaces. For 4 students: 48,000-204,000 characters, including spaces.

The character limits include the cover, table of contents, summary, bibliography, figures and other illustrations, but exclude any appendices.

The master thesis must include a summary. The summary can either be written in English or Danish.

The summary is included in the overall assessment with a weighting of 5 percent.

Before submitting a master thesis written by a group, that have chosen an assessment solely based on the written product, each member of the group must clearly indicate which part(s) of the thesis they are responsible for.

All group members are responsible for the introduction, conclusion and summary.

The oral exam is individual for students that have written the thesis alone, or students that have requested an individual exam. All other oral master thesis exams are conducted as group exams.

Time allowed for exam including time used for assessment for:

1 student: 60 minutes. 2 students: 120 minutes. 3 students: 150 minutes. 4 students: 180 minutes.

There will be an individual assessment of each student's performance. The assessment is an overall assessment of the master thesis and, where relevant, the oral performance.

Writing and spelling skills in the thesis are part of the assessment and will count for 15 percent.

Permitted support and preparation materials at the oral exam: Outline on maximum one A4 size-page and presentation material.

Assessment: 7-point grading scale. Moderation: External examiner.

#### Form of Reexamination

Samme som ordinær eksamen / same form as ordinary exam

Type of examination in special cases

Examination and assessment criteria

The project is evaluated on the basis of the students ability

- to discuss and analyze the selected subject areas
- to understand and reflect on their own thesis research and how it fits into an academic context.
- to use and master scientific theories and methods while working with a specific, academic and relevant research question
- to analyze, categorize, discuss, argue, reflect and evaluate complex data on a scientific basis
- to critically view and select scientific sources, literature, theories and methods
- to write in accordance with academic text norms and for an academic target group
- to use experimental methods in a research process

The assessment of the oral exam is based on the student's ability to meet the criteria mentioned above and their ability to

- clearly present and communicate the scientific content of the project
- engage in a scientific dialogue and discussion with the supervisor and assessor

Furthermore, whether the performance meets all formal requirements in regard to both for the written og oral exam.

Exam code(s)

Exam code(s): U60055

### Course days:

### Hold: 1

## Hand-in of Thesis (starting January 2023)

time 01-11-2023 10:00 til

01-11-2023 10:00

forberedelsesnorm ikke valgt forberedelsesnorm D-VIP ikke valgt

# Hand-in of Thesis (starting August 2023)

time 03-06-2024 10:00 til 03-06-2024 10:00

forberedelsesnorm ikke valgt

forberedelsesnorm D-VIP ikke valgt