Course Specifications
Valid as from the academic year 2019-2020

Course

Credits 20.0
Study time 600 h
Contact hrs 200.0 h

Course offerings and teaching methods in academic year 2019-2020

A (year)

Dutch

master's dissertation

200.0 h

Lecturers in academic year 2019-2020

De Gelder, Leen

LA25

lecturer-in-charge

Offered in the following programmes in 2019-2020

Master of Science in Biochemical Engineering Technology

20

A

Teaching languages

Dutch

Keywords

Scientific research techniques, scientific literature, scientific manuscript

Position of the course

With the successful defending of the Master's Dissertation, the student shows that he/she obtained the objectives and attainment targets of the programme Master of Bioscience Engineering Technology. He/she has mastered the skills to conduct scientific research and the specific professional competences necessary for the use of scientific knowledge at the level of a starting employee.

Contents

The Master's Dissertation is the result of an extensive literature study and the scientific research the student has conducted. This research can be performed in our own laboratories or in collaboration with the industry (after e.g. performing an internship) or in a scientific institution.

The literature study and the research explore a specific problem and propose a solution. The results of the literature study and the research are written down in a thesis. This manuscript includes at least a table of contents, abstract, introduction, literature review, materials and methods, results and a critical discussion of the results obtained. The conclusions are if possible supported by statistical analysis. In the literature list, reference is made to the international literature in the specific research domain. The thesis is normally written in Dutch. The thesis and in particular the results of the research are presented orally and defended before a jury.

Initial competences

Sufficiently acquired the final competences of the Bachelor of Science in Chemical Engineering Technology or of the linking course to Master of Engineering Technology in Biochemical Sciences

Final competences

1. Be able to analyze a problem correctly and to formulate clear research questions;
2. Be able to look up, process and synthesize scientific literature to a critical chapter;
3. Be able to set up an appropriate methodology and to implement new techniques;
4. Be able to collect the data independently and carefully;
5. Be able to analyze the results or the results of others after a thorough statistical analysis;
6. Be able to formulate a relevant decision;
7. Be able to write down the results of the literature study and the research and to write down a synthesis of the master thesis in a clear and structured way;
8. Be able to work independently and to show initiative and motivation;
9. Be able to communicate in a proper manner about the research and to follow up the

(Approved)
10. Be able to present and defend the results orally.

Conditions for credit contract
This course unit cannot be taken via a credit contract

Conditions for exam contract
This course unit cannot be taken via an exam contract

Teaching methods
Master's dissertation

Learning materials and price

References

Course content-related study coaching
The master's dissertation is actively coached by the promoter(s) and tutor(s)

Evaluation methods
end-of-term evaluation and continuous assessment

Examination methods in case of periodic evaluation during the first examination period
Oral examination, assignment

Examination methods in case of periodic evaluation during the second examination period
Oral examination, assignment

Examination methods in case of permanent evaluation
Participation, job performance assessment

Possibilities of retake in case of permanent evaluation
examination during the second examination period is possible

Calculation of the examination mark
- Evaluation during the research: 30%
- Evaluation scientific value and quality: 50%
- Evaluation oral defense and discussion: 10%
- Presentation: 10%