Faculty of Medicine

BIMM72, Biomedicine: Master Thesis Project (60 credits), 60 credits

Biomedicin: Examensarbete på masternivå (60 hp), 60 högskolepoäng

Second Cycle / Avancerad nivå

Details of approval

The syllabus was approved by Committee for Biomedical, Medical and Public Health Education on 2015-12-02 to be valid from 2016-01-01, spring semester 2016.

General Information

Degree project within the Master of Science programme in Biomedicine.

Language of instruction: English

Main field of studies	*Depth of study relative to the degree requirements*
Biomedicine	A2E, Second cycle, contains degree project for Master of Arts/Master of Science (120 credits)

Learning outcomes

Knowledge and understanding

On completion of the course, the students shall be able to

- use correct scientific terminology to account for the state of knowledge in the field and take a critical position on current biomedical research
- provide a detailed account and vindication of all the methods used in the relevant project

Competence and skills

On completion of the course, the students shall be able to

- in consultation with the supervisor, plan, independently formulate and execute a biomedical project within predetermined time frames
- aided by feedback from the supervisor, independently write an academic paper in English at a high academic level and including a popular science summary
- provide an oral account and critical discussion and analysis of their own projects in dialogue with different groups
- explain the aim, background and common techniques of a biomedical research area in a manner adapted to the prior knowledge of the relevant target group
- critically and scientifically review, assess and provide constructive feedback on research reports
- participate constructively in and lead teamwork with different professional groups within the field of biomedicine

Judgement and approach

On completion of the course, the students shall be able to

- reflect on, critically review and discuss issues of ethics, statistics and safety within biomedical research
- critically assess the significance and limitations of biomedical research with reference to current literature, the research issue, the chosen methodology and the processing method
- reflect on and identify educational challenges in the communication with target groups with different prior knowledge
- assess and justify the academic and/or medical value of biomedical projects, and describe to target groups with different prior knowledge the societal benefits of biomedical projects

Course content

Guided by a supervisor, students are to practically and theoretically execute a project with a clear connection to biomedical research. The project must address a clear and defined biomedical issue.

Course design

A project with a clear biomedical connection is to be executed under supervision at a university, company or similar municipal or government organisation conducting advanced biomedical research. The student is to independently contact the organisation at which the project can be executed and together with the supervisor submit a detailed project plan and time plan (according to a template) to the course director for approval before commencing the project. The project plan is to be presented to fellow students at a seminar. The degree project comprises not only the laboratory activities, but also the preparations, literature studies, compilation of results, evaluation and report writing. The course also includes components on popular science writing, supervision or teaching, peer review of a fellow student's midway progress, oral presentation and defence of the report, and a critical review of a fellow student's report.

The supervisor/s and teaching staff reviewer are to be appointed by the examiner of the course. The supervisor is responsible for the student's education during the degree project. The duties of the supervisor are to make sure that the project is executed in accordance with the project and time plan, i. e. in a manner suited to the purpose, that sufficient time is set aside for writing the report and that the final design of the report is clear and easy to follow. During the process, the student is to participate in the seminars of the research team or the organisation. In connection with the presentation of the report, the supervisor is to submit documentation of the student's independence in accordance with a template. The teaching staff reviewer is to have expertise in the field but must not have been involved in the project. His/her assignment is to critically review the paper and the oral presentation, and assess them in accordance with the assessment criteria of the course.

Assessment

The assessment is based on two components: a course portfolio and a presentation in speech and writing.

The course portfolio is to include: A) a project plan presented in writing, and orally at a seminar. The project plan and the oral presentation of the project plan are assessed in accordance with the assessment criteria available on the course home page. B) Practical supervision of an upper secondary school pupil in the research laboratory and a written reflection on practical supervision. If the project is executed outside the local area or during the autumn semester, an alternative teaching assignment can replace the supervision assignment. C) independently completed trials, analysis of data and report writing, and active and constructive participation in the work of the research team. The assessment of this component is based on the supervisor's written assessment of the student's independence and on the written reflection on the teamwork. D) A completed critical review of a fellow student's degree project. The critical review is assessed by a representative of the group of examiners in accordance with the assessment criteria available on the course home page. E) submission of the introduction and sections on material and method of the report and a peer review of a fellow student's submission.

The written and oral presentation includes that the students are to present their projects in writing in the form of a scientific report in accordance with the instructions for authors available on the course home page and in the form of a popular science summary of the project. Furthermore, the degree project is to be presented and defended orally at a seminar in which each student is to be examined individually by a previously appointed teaching staff reviewer and a representative of the group of examiners. Both the written and the oral presentation are to be assessed in accordance with the assessment criteria available on the course home page.

Five examination opportunities are provided each year.

Subcourses that are part of this course can be found in an appendix at the end of this document.

Grades

Marking scale: Fail, Pass.

Entry requirements

To be admitted to the course, students must have at least 30 credits in the Master of Science programme in Biomedicine.

Further information

The course is one of three degree project courses provided within the Master of Medical Science programme in Biomedicine, only one of which may be included in a degree. A maximum of 60 credits from project courses including the degree project may be accredited towards a degree.

Subcourses in BIMM72, Biomedicine: Master Thesis Project (60 credits)

Applies from V16

1501 Written and oral examination, 53,0 hp
Grading scale: Fail, Pass
1502 Course portfolio, 7,0 hp
Grading scale: Fail, Pass