Faculty of Medicine

BIMM81, Biomedicine: Research Project in Academia, 45 credits

Biomedicin: Forskningsprojekt inom akademi, 45 högskolepoäng

Second Cycle / Avancerad nivå

Details of approval

The syllabus was approved by The Master's Programmes Board on 2021-03-16 to be valid from 2021-03-24, autumn semester 2021.

General Information

The course is included in the academic research path and is compulsory in the *specialisation in experimental biomedical research.* It is included in semester 3 and 4 of the Master's 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

- give an account of the current biomedical knowledge situation using scientifically correct terminology.

Competence and skills

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

- lead, risk-assess, carry out and document a delimited research project, independently and within the given deadlines

- participate in teamwork with different professionals in the biomedical subject area
- write an introductory chapter to the subject area
- summarise the project results in the form of a research manuscript adapted for a medical journal
- scientifically review and provide feedback on a research report, and manage and answer feedback on their own work
- present the results and conclusions of the project orally at a critical review and discuss the content of the research manuscript with an appointed expert critical reviewer and student critical reviewer, and publicly discuss and examine another project.

Judgement and approach

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

- evaluate and justify the importance of the biomedical project for continued research, societal benefit or as a basis for decision-making
- reflect on ethical issues in the project, and discuss alternatives and consequences related to these based on ethical principles and guidelines
- reflect on their role in the project and how cooperation with the project owner and reference groups has worked.

Course content

In the course, the student is expected to be the project manager for a delimited research project in consultation with the supervisor, who is the project owner. The student is also expected to work in consultation with reference groups, which may be e.g. other students, biomedicine analysts, doctoral students or other employees who work in the environment and on adjacent activities.

Course design

The project is carried out at an academic research laboratory. The student will, independently and in good time, have contacted a research team where the project will be carried out after the project plan has been approved. The research project includes laboratory activities, literature studies, summary of results, evaluation and writing an introductory chapter as well as a research manuscript. The supervisor and expert critical reviewer are appointed by the course examiner according to a proposal by the student. The supervisor is responsible for providing feedback on the student's work during the project, but the student is solely responsible for ensuring the work that is carried out follows the project plan and schedule. However, the supervisor is to ensure that the student is given sufficient opportunity to carry out this, that enough time is allocated for compilation and report writing, and there is an opportunity to train for the oral presentation before the final assessment is made. During the period in which the project is carry out, the student is to participate in the research team's seminars or other equivalent activities. If the project is carried out at other university, there is also to be a local supervisor at Lund University.

The expert critical reviewer is to be a researcher with a PhD who is present during the examination and assesses the research manuscript as a briefing for the examiner. The expert critical reviewer is also to discuss the manuscript and results with the student at the oral critical review.

Assessment

The course is assessed through a course portfolio containing an introductory chapter to the subject area, a written research manuscript, peer-review process, oral presentation and discussion with expert critical reviewer, public discussion and examination of another student's project and reflection on their own role in the implementation of the project and in teamwork. Furthermore, the completed placement is to be certified in writing by the supervisor at the organisation. The certificate is to clearly state the completed duties and scope as well as an assessment of the student's efforts both independently and in cooperation.

1. Course portfolio 30 credits (Fail/Pass/Pass with Distinction)
2. Research manuscript 15 credits (Fail/Pass/Pass with distinction)

If there are special reasons, other forms of assessment may apply.

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

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

Grades

Marking scale: Fail, Pass, Pass with distinction.
To achieve the grade of Pass as a final grade, the grade of Pass is required on the course portfolio. To achieve the grade of Pass with Distinction as a final grade, the grade of Pass with Distinction is required on the course portfolio and the research manuscript.

Entry requirements

Completed examinations in semester 1 of the Biomedicine Programme (30 credits), and 15 credits in semester 2 and the completion of BIMM03 (Innovation and Entrepreneurship) and BIMM05 (Project Leadership in Research).

Further information

Leads to a Master's Degree in Biomedicine with a *specialisation in experimental biomedical research* (120 credits) in which passed examinations and course components in BIMM01, BIMM02, BIMM03 and BIMM05 are to be included.

Subcourses in BIMM81, Biomedicine: Research Project in Academia

Applies from H21

2101 Course portfolio, 30,0 hp
Grading scale: Fail, Pass, Pass with distinction
2102 Scientific manuscript, 15,0 hp
Grading scale: Fail, Pass, Pass with distinction