



## COURSE SYLLABUS

# Biomedical Laboratory Science - Focusing Clinical Physiology, Thesis, 15 credits

*Biomedicinsk laboratorievetenskap - inriktning klinisk fysiologi, examensarbete, 15 högskolepoäng*

---

<b>Course Code:</b> HBEP12	<b>Education Cycle:</b> First-cycle level
<b>Confirmed by:</b> Utbildningsrådet Oct 26, 2021	<b>Disciplinary domain:</b> Medicine
<b>Revised by:</b> Utbildningsrådet Feb 13, 2024	<b>Subject group:</b> BL1
<b>Valid From:</b> Jan 20, 2025	<b>Specialised in:</b> G2E
<b>Version:</b> 3	<b>Main field of study:</b> Biomedical Laboratory Science

---

## Intended Learning Outcomes (ILO)

On completion of the course the student should be able to

### Knowledge and understanding

- demonstrate deepened knowledge and understanding on theoretical and methodological aspects within the field of biomedical laboratory science, enabling active participation in developmental work in the field
- demonstrate knowledge in biomedical laboratory science, medicine, theory of science, and statistics.

### Skills and abilities

- independently, conduct a research-based project work within the field of biomedical laboratory science, applying quantitative or qualitative methodology, and within the specified timeframe
- based on the selected design, conduct a study, applying methodology within the field of biomedical laboratory science to address the research question, while reflecting upon potential challenges encountered during the project work
- apply, analyze, and assess knowledge of relevant methods
- perform literature retrieval, critically assess, and summarize scientific knowledge based on published data
- assimilate supervision
- critically review, and discuss other students' work within field of biomedical laboratory science
- discuss ethical and societal aspects of the project work
- synthesize (summarize, conclude, and discuss), and relate the gathered data to the scientific question and to published scientific data, both written and orally.

### Judgement and approach

- discuss ethical viewpoints related to the project work
- evaluate examination works/developmental works based on current level of evidence.

## Contents

- planning and conducting of an independent project work within the field of study
- literature search and evaluate relevant sources
- processing, presentation, interpretation, and analyze of data
- the writing process of the bachelor thesis, written and oral presentation
- critical reviewing of a bachelor thesis
- principles of research ethics

## Type of instruction

The course is implemented in the form of online instructional content, individual and group supervision, and examination seminars.

The teaching is normally conducted in Swedish, but can occasionally be in English.

## Prerequisites

### Examination and grades

The course is graded A, B, C, D, E, FX or F.

The examination comprises the report, the practical work, the presentation and opposition (including seminars ).

Examination of the course will be based upon one written thesis, the conduction of the project work, one oral presentation of the student's own research, and one oral opposition of another bachelor thesis work. A supervisor assesses the practical work skills, and the final grade is to be determined by a teacher specifically appointed by the university (the examiner).

A senior lecturer will serve as examiner for this subject.

Registration of examination:

Name of the Test	Value	Grading
Written report (bachelor thesis)	9 credits	A/B/C/D/E/FX/F
Conduction of the project work	4 credits	U/G
Oral presentation	1 credit	U/G
Opposition	1 credit	U/G

## Other information

Mandatory attendance at all supervision sessions.

If participation of international exchange student, the report can be written in English.

The report must be submitted within a two-year timeframe; after this period a new project must be undertaken.

## Course literature

Project specific literature will be selected by the student after consultation with supervisor.

Dahlström, K. (2011). Från datainsamling till rapport – att göra en statistisk undersökning. Studentlitteratur.

Ejlertsson, G. (2019). Statistik för hälsovetenskaperna. Studentlitteratur.

Forsberg, C. & Wengström, Y. (2016). Att göra systematiska litteraturstudier: värdering analys och presentation. Natur & Kultur Akademisk.

Hall, G.M. (ed) (2012). How to write a paper. BMJ Publishing Group.

Kvale, S. & Brinkmann, S. (2014). Den kvalitativa forskningsintervjun. Studentlitteratur. Trost, J. (2013). Att vara opponert. Studentlitteratur.

Trost, J. (2014). Att skriva uppsats med akribi. Studentlitteratur. Wahlgren, L. (2013). SPSS steg för steg. Studentlitteratur.

Corresponding English literature upon request.