



**Karolinska
Institutet**

Course syllabus for

Scientific Methodology 1, 3 credits

Vetenskaplig metodik 1, 3 hp

This course syllabus is valid from autumn 2018.

Please note that the course syllabus is available in the following versions:

Autumn2016 , Autumn2018 , Autumn2023

Course code	1BA083
Course name	Scientific Methodology 1
Credits	3 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Biomedical Laboratory Science
Level	G1 - First cycle 1
Grading scale	Pass, Fail
Department	Department of Laboratory Medicine
Decided by	Education committee Labmed
Decision date	2016-05-12
Revised by	Education committee LABMED
Last revision	2017-11-06
Course syllabus valid from	Autumn 2018

Specific entry requirements

Biology 2, Physics 1a / Physics 1b1 + 1b2, Chemistry 2, Mathematics 3b / 3c (field specific entry requirements A12). Or: Biology B, Physics A, Chemistry B, Mathematics C (field specific entry requirements 12).

Objectives

The general aim of the course is to place the basis for the scientific approach that dominates the biomedical laboratory science programme. During the time of the education, a continuous development of the student's scientific abilities and attitudes in accordance with the scientific progression ladder of the programme takes place. A specialisation in scientific methodology and statistics takes place during the course scientific methodology 2 in the education.

On completion of the course, the student should be able to:

Knowledge and understanding

- account for and discuss basic scientific concepts
- account at a general level for the basics of scientific methodology

- identify the central stages in the research process
- reflect on the relationship between research and development in biomedical laboratory science

Skill and ability

- formulate a hypothesis based on a given context
- analyse conclusions based on a given context critically
- apply simple statistics
- seek information source-critically
- speak clearly in writing with for the subject area relevant terms

Assessment skill and attitude

- apply a scientific and reflecting attitude in his learning

Content

Scientific theory and method including statistical processing and literature project.

Teaching methods

The course is given in the form of seminars, self-study and lectures.

Examination

Examination takes place in the form of a written examination, written assignments and group-/cross-group presentations. Grade Pass/Fail

A re-examination is given in connection with the course as well as during a re-examination period in August. The students who not are passed after regular examination session have a right to participate at five further examination sessions. In case of absence from compulsory components, an agreement between student and course coordinator concerning supplementary qualification is made.

Transitional provisions

Examination according to this syllabus will be provided during one year after the decision to terminate the course or revision of the syllabus.

Other directives

Course evaluation will be carried out in accordance with the guidelines established by the Board of Higher Education.

Literature and other teaching aids

Olsson, Henny; Sörensen, Stefan

Forskningsprocessen : kvalitativa och kvantitativa perspektiv

3. uppl. : Stockholm : Liber, 2011 - 328 s.

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