Course syllabus for

# Basic Laboratory Science, 6 credits

Grundläggande laboratoriemetodik, 6 hp
This course has been cancelled, for further information see Transitional provisions in the last version of the syllabus.
Please note that the course syllabus is available in the following versions:
Spring2008 , Spring2013

| | |
|---|---|
| Course code | 1BA000 |
| Course name | Basic Laboratory Science |
| Credits | 6 credits |
| Form of Education | Higher Education, study regulation 2007 |
| Main field of study | Biomedical Laboratory Science |
| Level | G1 - First cycle 1 |
| Grading scale | Pass with distinction, Pass, Fail |
| Department | Department of Laboratory Medicine |
| Decided by | Programnämnden för Biomedicinska analytikerprogrammet, inriktning laboratoriemedicin |
| Decision date | 2007-10-15 |
| Revised by | Education committee LABMED |
| Last revision | 2017-09-28 |
| Course syllabus valid from | Spring 2013 |

## Specific entry requirements

General entry requirements for higher studies and specific entry requirements as stated in the programme syllabus for the Biomedical laboratory science education or the equivalent knowledge.

## Objectives

The aim of the course is to provide basic theoretical and practical knowledge within laboratory methodology. On completion of the course, the student should be able to:

- perform a laboratory work carefully and systematically on the basis of given method descriptions and security regulations
- understand and carry out chemical calculations
- master the use of basic laboratory equipment
- critical review, analyse, document and discuss results
- know how to identify a problem to be studied
- know how to a report a study in a scientific manner both orally and in writing

- know how on a fundamental level document, analyze and report results by selected method (eg statistical analyzes, tables and graphs)
- know how on a fundamental level review a written report and oppose an oral presentation

# Content

The students should learn to work with basal laboratory equipment based on given method descriptions and security regulations. Solution preparations are included in order to illustrate the characteristics of different solutions. Chemical calculations as well as central and dispersion measures, and normal distribution in statistics are important parts in the course. The student should perform, document, analyse and discuss different analyses and studies within a diagnostic laboratory practice in order for the student to get a good understanding of safe analysis results. To further develop the scientific approach the student should attend a presentation of a degree project, read it and write a scientific summary.

The following parts are included:

-Lab and written reports, 2 credits
-practical examinations, 4 credits

**Laboratory sessions and written reports, 2 hp** Laboratory experiments, reports and written scientific summary of a degree project **Practical examination, 4 hp** Practical examination

# Teaching methods

The teaching is given as lectures, laboratory experiments and seminars. The student should document laboratory parts in a personal workbook and present the experiments in reports.

# Examination

The examination is carried out as a practical test and is the part of the course that underlies the final grade. All laboratory sessions and seminars including the laboratory lectures in the course are compulsory. Laboratory reports are written according to instructions for each laboratory session and must be approved.

Students who have not passed the regular examination are entitled to participate in five more examinations. If the student is not approved after four examinations, he/she is recommended to retake the course at the next regular course date and may, after that, participate in two more examinations. If the student has failed six examinations/tests, no additional examination or new admission in the course is given. The number of times that the student has participated in one and the same examination is regarded as an examination session. Submission of a blank examination is regarded as an examination. An examination for which the student registered but not participated in, will not be regarded as an examination. In case of absence from the compulsory parts in the course (laboratory sessions and seminars and the laboratory lectures), an agreement is made between students and the responsible teacher concerning compensation.

# Transitional provisions

The course has been cancelled and was offered for the last time in the spring semester of 2013. Examination will be provided until the spring of 2018 for students who have not completed the course.

# Other directives

Course evaluation will be conducted according to the guidelines established by the Board of Education.

# Literature and other teaching aids

*Ringsrud, Karen Munson; Linné, Jean Jorgenson*
**Linné & Ringsrud's Clinical laboratory science : the basics and routine techniques**
*Turgeon, Mary L.*

5. ed. /b [editor] Mary L. Turgeon : St. Louis, Mo. : Mosby Elsevier, cop. 2007 - xiv, 608 s.
ISBN:0-323-03412-8 LIBRIS-ID:10255799
Library search

*Ejlertsson, Göran*
**Statistik för hälsovetenskaper**

Lund : Studentlitteratur, 2003 - 275 s.
ISBN:91-44-03123-8 LIBRIS-ID:8353333
Library search

*Burnett, David; Crocker, John*
**The science of laboratory diagnosis**

2. ed. : Chichester : Wiley, 2005 - 542 p.
ISBN:0-470-85912-1 (hbk.) LIBRIS-ID:9612133
Library search