



*Programme syllabus for*

# **Study Programme in Biomedical Laboratory Science, 180 credits**

*Biomedicinska analytikerprogrammet, 180 hp*

## **Basic programme information**

Programme code	1BA16
Name of the programme	Study Programme in Biomedical Laboratory Science
Specialisations	The study programme has two specialisations: <ul style="list-style-type: none"><li>• Clinical Physiology (<i>Klinisk fysiologi</i>)</li><li>• Laboratory Medicine (<i>Laboratoriemedicin</i>)</li></ul>
Number of credits	180.0 credits (180.0 ECTS credits)
Starting date	The syllabus applies to students who commence their studies in or after autumn 2016.
Decision date	2016-05-10
Decided by	Board of Higher Education
Last revision	2023-05-26
Revised by	Committee for Higher Education
Reference number	3-2405/2023
Specific eligibility requirements	Biology 2, Physics 1a or Physics 1b1+1b2, Chemistry 2, Mathematics 3b or Mathematics 3c or Mathematics C.
Main field of study	Biomedical Laboratory Science
Qualification	Biomedicinsk analytikerexamen <i>Degree of Bachelor of Science in Biomedical Laboratory Science</i>  Medicine kandidatexamen med huvudområdet biomedicinsk laboratorievetenskap <i>Degree of Bachelor of Medical Science with a Major in Biomedical Laboratory Science</i>

A student who fulfils the requirements for the award of a qualification shall, upon request, be provided with a certificate.

# Outcomes

## Outcomes of first cycle education according to the Higher Education Act

First-cycle courses and study programmes shall be based fundamentally on the knowledge acquired by pupils in national study programmes in the upper-secondary schools or its equivalent. The Government may, however, permit exceptions for courses and study programmes in the fine, applied or performing arts.

First-cycle courses and study programmes shall develop:

- the ability of students to make independent and critical assessments
- the ability of students to identify, formulate and solve problems autonomously, and
- the preparedness of students to deal with changes in working life.

In addition to knowledge and skills in their field of study, students shall develop the ability to:

- gather and interpret information at a scholarly level
- stay abreast of the development of knowledge, and communicate their knowledge to others, including those who lack specialist knowledge in the field.

## Outcomes of the Degree of Bachelor of Science in Biomedical Laboratory Science according to the Higher Education Ordinance

For a Degree of Bachelor of Science in Biomedical Laboratory Science the student shall demonstrate the knowledge and skills required for registration as a biomedical analyst.

### *Knowledge and understanding*

For a Degree of Bachelor of Science in Biomedical Laboratory Science the student shall

- demonstrate knowledge of the disciplinary foundation of the field and awareness of current research and development work as well as the links between research and proven experience and the significance of these links for professional practice
- demonstrate knowledge of relevant methods in the field, and
- demonstrate knowledge of the relevant statutory provisions.

### *Competence and skills*

For a Degree of Bachelor of Science in Biomedical Laboratory Science the student shall

- demonstrate the ability to plan and undertake analyses and examinations autonomously and to cooperate in these with patients and those close to them
- demonstrate the ability to develop, use and assure the quality of biomedical laboratory and testing methods
- demonstrate the ability to apply his or her knowledge to deal with different situations, phenomena and issues on the basis of the needs of individuals and groups
- demonstrate the ability to inform and instruct different audiences
- demonstrate the ability to gather, appraise and critically interpret the findings of analyses and examinations, notice and deal with deviations, as well as to present and discuss the results in speech and writing with those concerned and to document them in accordance with the relevant statutory provisions
- demonstrate the capacity for teamwork and cooperation with other professional categories, and
- demonstrate the ability to review, assess and use relevant information critically and to discuss new data, phenomena and issues with various audiences and so contribute to the development of the profession and professional practice.

*Judgement and approach*

For a Degree of Bachelor of Science in Biomedical Laboratory Science the student shall

- demonstrate self-awareness and the capacity for empathy
- demonstrate the ability to make assessments using a holistic approach to individuals informed by the relevant disciplinary, social and ethical aspects and taking particular account of human rights
- demonstrate the ability to adopt a professional approach to clients or patients, those close to them and other groups, and
- demonstrate the ability to identify the need for further knowledge and undertake ongoing development of his or her skills.

**Outcomes of the Degree of Bachelor according to the Higher Education Ordinance***Knowledge and understanding*

For a Degree of Bachelor of Science student shall

- demonstrate knowledge and understanding in the main field of study, including knowledge of the disciplinary foundation of the field, understanding of applicable methodologies in the field, specialised study in some aspect of the field as well as awareness of current research issues.

*Competence and skills*

For a Degree of Bachelor of Science student shall

- demonstrate the ability to search for, gather, evaluate and critically interpret the relevant information for a formulated problem and also discuss phenomena, issues and situations critically
- demonstrate the ability to identify, formulate and solve problems autonomously and to complete tasks within predetermined time frames
- demonstrate the ability to present and discuss information, problems and solutions in speech and writing and in dialogue with different audiences, and
- demonstrate the skills required to work autonomously in the main field of study.

*Judgment and approach*

For a Degree of Bachelor of Science student shall

- demonstrate the ability to make assessments in the main field of study informed by relevant disciplinary, social and ethical issues
- demonstrate insight into the role of knowledge in society and the responsibility of the individual for how it is used, and demonstrate the ability to identify the need for further knowledge and ongoing learning.

**Outcomes of the study programme at Karolinska Institutet**

In addition to the national objectives, the following outcomes apply for the Study Programme in Biomedical Laboratory Science at Karolinska Institutet:

*Knowledge and understanding*

**UNDER ÖVERSÄTTNING**

*Competence and skills*

**UNDER ÖVERSÄTTNING**

*Judgement and approach*

**UNDER ÖVERSÄTTNING**

**Content and structure**

**UNDER ÖVERSÄTTNING****Scientific knowledge, competence and approach****UNDER ÖVERSÄTTNING****Practice Integrated Learning****UNDER ÖVERSÄTTNING****Internationalisation****UNDER ÖVERSÄTTNING****Elective courses****UNDER ÖVERSÄTTNING****Transitional provisions**

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**Other guidelines****Grading scale**

The grades used are Fail or Pass. Alternative grading scales may apply to cross-programme courses. The grading scale is detailed in the course syllabus.

**Language of instruction**

The course language is Swedish but courses may be held in English. The literature is mainly in English, but also some literature in Swedish will be used.

**Specific eligibility requirements within the programme**

There are specific eligibility requirements for the courses within the programme. The eligibility requirements can be found in the syllabi. In cases where the requirements are connected to the admission to a later term, they are described on the programme website. There may also be specific eligibility requirements within a specific term if a course requires certain prior knowledge.

**Guidelines regarding the suspension of clinical educations whilst the course is in progress**

A student's clinical education (VFU) can be immediately suspended if the student demonstrates such serious shortcomings, in terms of knowledge, skills or approach, as to jeopardise the safety of the patients, or their trust in their medical care. The administration of such matters must be outlined in the course syllabus.

If the education is suspended in this manner, an individual action plan shall be drawn up stating the activities and testing that will be required for a student to be given the opportunity to recommence the education.