PROGRAMME SYLLABUS

Biomedicinprogrammet
Biomedicine - Study Programme
180 credits

Programme Code: BMEPG
Academic Level: Basic level
Version: 10.6

The Programme Syllabus is valid from: Autumn term 2015
Date of Approval: Feb 24, 2017

1 Name and Scope of the Study Programme
The programme is provided by the University of Skövde and is named Biomedicine - Study Programme. It comprises 180 credits.

2 General Objectives
The studies on undergraduate level are to develop students’ ability to

- reach independent and critical conclusions
- independently discern, formulate and solve problems, and
- acquire preparedness to face changes in their future working lives

Within the area the studies focus on, students are, over and above their knowledge and competence, also to develop the ability to

- search for and evaluate knowledge on a scientific level,
- pursue current development within their field of study, and
- exchange ideas also with those who do not have expert knowledge within this field of study.

(Objectives for studies on undergraduate level, The Higher Education Act)

3 Programme Objectives
The major field of study is Biomedicine.

Objectives of the Bachelor’s degree in Higher Education are

Knowledge and understanding
For a Bachelor’s Degree, the student should be able to

- demonstrate knowledge and understanding in the major subject area including knowledge of the scientific basis, methodologies in the field, specialization within a sub-area and understanding of current research directions.

Skills and Abilities
For Bachelor’s Degree, the student should be able to

- demonstrate the ability to search, evaluate and critically interpret relevant information in a study case and to critically discuss relevant phenomena, issues and situations,
- demonstrate the ability to identify, formulate and solve problems and to perform tasks within specified time limits,
- demonstrate the ability to orally and in writing explain and discuss information, problems and solutions in dialogue with different groups, and
- demonstrate the skills required to independently work within the educational field.

Critical judgment and approach
For Bachelor’s Degree, the student should be able to

- demonstrate skills in the major field of study, make evaluations with respect to relevant scientific, social and ethical aspects,
demonstrate an understanding of the role of knowledge in society and people’s responsibility for application of knowledge, and

demonstrate the ability to identify their individual needs for further knowledge and developing their skills.

Local objectives for the programme at the University of Skövde

The student should after completing the programme show

- good knowledge in Biomedicine and related topics, perspectives of Biomedicine’s historical development and scientific basis,

- knowledge of the structure and function of the tissues and organ systems that build up the human body and relating these knowledge to the molecular and genetic mechanisms,

- knowledge of scientific methods, experiments and evaluations that are used to analyze and identify biomedical issues,

- ability to process, analyze and present basic biomedical data from different types of experiments and assessments,

- ability to analyze and present issues regarding various disease conditions in humans, taking into consideration ethnicity and gender perspective, and

- ability to discuss and analyse different aspects of ethical and legal issues in the field of biocience.

4 Programme Content

The education programme is based on the academic Biomedicine subject area, and starts with instructions at basic level of case studies in bioscience, chemistry and cell biology, to provide fundamental knowledge in the subject area. The first year ends with a course in human physiology, in which knowledge of chemistry and biology are integrated with knowledge on the human body’s structure and function at the level of organs and organism.

The programme’s second and third years provide specialization in traditional biomedical subjects, including courses that offer the latest theoretical developments and modern methodologies in the biomedical field. The student has the opportunity to profile their individual training within Biomedicine by participating in student exchange schemes with our partner higher education organizations. The programme ends with a thesis of 30 ECTS credits, during which the acquired knowledge though the study programme is used to independently solve a research problem of academic character within Biomedicine.

The following courses are included in the programme

- Introduction to Bioinformatics G1N, 7.5 ECTS
- Case Studies in Bioscience G1N, 7.5 ECTS
- Cell Biology I G1N, 7.5 ECTS
- Genetics G1N, 7.5 ECTS
- Basic Chemistry G1N, 15 ECTS
- Microbiology I G1N, 7.5 ECTS
- Project in Applied Bioinformatics G1F, 7.5 ECTS
- Biochemistry G1F, 7.5 ECTS
- Cell Signalling G1F, 7.5 ECTS
- Human Anatomy and Physiology I G1F, 7.5 ECTS
- Human Anatomy and Physiology II G1F, 7.5 ECTS
- Human Genetics G1F, 7.5 ECTS
- Immunology G1F, 7.5 ECTS
- Infection Biology G1F, 7.5 ECTS
- Method and Design in Life Science G1F, 7.5 ECTS
- Pharmacology I G2F, 7.5 ECTS
- Pharmacology II G2F, 7.5 ECTS
- Pathophysiology G2F, 7.5 ECTS
- Stem Cell Biology G2F, 7.5 ECTS
- Bachelor Project in Biomedicine G2E, 30 ECTS

5 Admission Requirements

General requirements are: Swedish secondary school courses: Biology B, Physics B, Chemistry B, Mathematics D and English B. Alternatively international courses: Biology 2, Physics 2, Chemistry 2, Mathematics 3c and English 6. The corresponding English proficiency is can normally be shown by an internationally recognized language tests, such as IELTS or TOEFL (or equivalent).

The above admission requirements apply for admission to the programme. For further studies within the programme, the admission requirements for each course must be complied with. These admission requirements are specified in each separate course syllabus.

6 Degree

Students who complete the program with at least a pass grade meet the general requirements for obtaining a Degree of Bachelor of Science with a major in Biomedicine.
In order to receive a degree certificate, students should apply for this on a special form.

7 Previous Credits
Results from previous studies or activities can be assessed and accredited for within the scope of the studies the degree is directed towards. This assessment should be applied for in writing.

8 Decision on the Study Programme and Ratification of the Programme Syllabus
This study programme was approved by the The University governing board, Dec 13, 2001. This programme syllabus was Ratified by the Curriculum Committee for Health Feb 24, 2017. It is valid from autumn term 2015 and replaces the programme syllabus ratified Mar 10, 2016.

9 Changes to the Programme Syllabus
Programme studies are carried out according to the programme syllabus applicable to the term the studies commenced, given that the plan of the programme is followed and no approved leave from studies is made. The programme syllabus can, however, be changed during the studies within the (limits of the) objectives of the programme, when programme syllabus and courses are revised.

When resuming studies after a leave or gap in studies, the student will follow the programme syllabus applicable to the term the studies are resumed. If major changes of the programme syllabus have been made, the student can contact a Student Counsellor to arrange for an individual course of studies.

10 Additional Information
The teaching is conducted in English.

Further information about the study programme will be available on the university’s web pages prior to a programme start.

National and local regulations for higher education are available on the university’s website.

In the policy documents, students’ rights and obligations are regulated as well as those general requirements of the studies. The following aspects, according to the policy documents, warrant special attention in the university’s study courses and programmes: ethical issues regarding research and studies, connection to research, gender perspective, sustainable development, information literacy, equality, internationalization, quality, equal opportunities, collaboration with the surrounding society, student influence, research theory, and research methodology.

During and after the study programme there will be a follow-up evaluation concerning the studies. The main objective of the follow-up is to contribute to improving the study programme. The students’ experience and points of view constitute one part of the scrutiny and is obtained through written group programme evaluation/discussions. The students will be informed about the outcome of these as well as of possible decisions concerning steps to be taken.