



Faculty of Medicine

## VMFB20, Biomedicine: Biochemical Methods in Biomedical Research, 7.5 credits

*Biomedicin: Biokemiska metoder i biomedicinsk forskning, 7,5  
högskolepoäng*  
First Cycle / Grundnivå

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### Details of approval

The syllabus was approved by The Master's Programmes Board on 2017-02-14 to be valid from 2017-02-15, spring semester 2017.

### General Information

Elective course in the Bachelor of Medical Science programme in Biomedicine.

*Language of instruction:* English

*Main field of studies*

Medicine

*Depth of study relative to the degree requirements*

G1F, First cycle, has less than 60 credits in first-cycle course/s as entry requirements

### Learning outcomes

#### Knowledge and understanding

On completion of the course, the student shall be able to use professional discourse to

- account for technical concepts for the methods chosen
- account for general chemical and molecular mechanisms on which the methods are based

#### Competence and skills

On completion of the course, the students shall be able to

- independently plan, perform and document experiments executed with the methods chosen
- independently compile and interpret results or observations obtained from experiments
- use professional discourse to make risk assessments for the methods chosen
- identify and assess relevant published research using the methods chosen

### **Judgement and approach**

On completion of the course, the students shall be able to

- reflect on ethical and environmental aspects of the methods chosen

### **Course content**

In the five weeks of the course, the students are to specialise in biochemical methods of relevance to biomedical research. The course consists of both practical management and reading.

### **Course design**

The course has the form of a project completed under supervision at a research laboratory at the Faculty of Medicine in Lund. In consultation with the course director, the student is to identify a suitable supervisor at a research laboratory who uses biochemical methods and together with the supervisor identify and delimit the scope of the project. In consultation with the supervisor, the student is to formulate a short description of the methods chosen which must be approved by the course director before the laboratory work may commence. The description must demonstrate that aspects of ethics and safety have been taken into account and include a time plan.

In addition to laboratory/practical exercises, the project is to include literature searches and study, documentation of completed experiments or investigations, interpretation of data, identification of sources of error, risk assessment, and an overview of safety and environmental aspects.

### **Assessment**

The assessment is based on

- a written report in which students are to demonstrate all the learning outcomes of the course and which is based on both individual experiences and published research,
- a passed laboratory log,
- a written risk assessment of the methods,
- an oral presentation at a seminar.

Other forms of assessment can be used, if there are special reasons.

*Subcourses that are part of this course can be found in an appendix at the end of this document.*

## **Grades**

Marking scale: Fail, Pass.

## **Entry requirements**

22.5 credits in cell biology, including both human and bacterial cell biology, and 7.5 credits in basic chemistry

## Subcourses in VMFB20, Biomedicine: Biochemical Methods in Biomedical Research

Applies from V17

1701 Course portfolio, 7,5 hp  
Grading scale: Fail, Pass