



**Karolinska  
Institutet**

Course syllabus for

## **Metabolic and Cardiovascular Diseases, 9 credits**

Metabola och kardiovaskulära sjukdomar, 9 hp

This course syllabus is valid from autumn 2019.

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

[Autumn2017](#) , [Autumn2019](#)

Course code	4BI105
Course name	Metabolic and Cardiovascular Diseases
Credits	9 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Biomedicine
Level	AV - Second cycle
Grading scale	Fail (U) or pass (G)
Department	Department of Medicine, Huddinge
Decided by	Programnämnden för biomedicinprogrammen
Decision date	2017-03-24
Revised by	Programme committee for study programmes in biomedicine
Last revision	2019-03-27
Course syllabus valid from	Autumn 2019

### **Specific entry requirements**

At least the grade G (pass) on the courses Applied communication in biomedicine 1 including philosophy of science and bioethics, Applied communication in biomedicine 2, Frontiers in translational medicine, Laboratory animal science in theory and practice, and Biostatistics, within the Master's programme in Biomedicine.

### **Objectives**

On completion of the course, the student should:

With regards to knowledge and understanding

- demonstrate knowledge of endocrine systems, metabolism and cardiovascular disease,

With regards to competence and skills

- be able to explain principles of metabolic regulation in different tissues at a molecular level,
- be able to explain the pathophysiology of endocrine disorders linked to obesity

- be able to discuss different aspects of the pathophysiology of cardiovascular disease,

With regards to judgment and approach

- be able to discuss relevant literature,
- demonstrate a scientific and analytical approach.

## Content

The course consists of several modules within the area of endocrinology, metabolism and cardiovascular disease. The course also contains practical training sessions in experimental techniques used in the study of metabolic and endocrine as well as cardiovascular disorders.

## Teaching methods

The pedagogic view is based on learning as an active research process. The course is an advanced course and it is assumed that students take responsibility to acquire knowledge. Teaching will be in the form of expert lectures, seminars, group-based work and/or laboratory sessions guided by researchers. Group-based and/or individual assignments are included and are presented as written reports and/or oral presentations.

## Examination

The examination consists of oral and written assignments.

### Compulsory participation

Attendance at the introduction to the components of the course, seminars, group work and laboratory sessions is compulsory. The course director assesses if and, in that case, how absence can be compensated. Before the student has participated in all compulsory parts or compensated absence in accordance with the course director's instructions, the student's results will not be registered in LADOK. Absence from a compulsory activity may result in that the student cannot compensate the absence until the next time the course is given.

### Limited number of examinations or practical training sessions

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 is provided.

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 counted as an examination.

If there are special grounds, or a need for adaptation for a student with a disability, the examiner may decide to deviate from the syllabus's regulations on the examination form, the number of examination opportunities, the possibility of supplementation or exemptions from the compulsory section/s of the course etc. Content and learning outcomes as well as the level of expected skills, knowledge and abilities may not be changed, removed or reduced.

## Transitional provisions

After each course occasion there will be at least six occasions for the examination within a two-year period from the end of the course.

## **Other directives**

The course language is English.

## **Literature and other teaching aids**

Course literature is scientific papers and material handout out during the course.