



**Karolinska  
Institutet**

Course syllabus for

## **Nutrition and metabolism, 10 credits**

Nutrition och metabolism, 10 hp

This course has been cancelled, for further information see Transitional provisions in the last version of the syllabus.

Course code	4BI057
Course name	Nutrition and metabolism
Credits	10 credits
Form of Education	Higher Education, study regulation 2007
Main field of study	Biomedicine
Level	AV - Second cycle
Grading scale	Pass, Fail
Department	Department of Biosciences and Nutrition
Decided by	Programnämnden för biomedicinprogrammen
Decision date	2009-05-06
Revised by	Programme committee for study programmes in biomedicine
Last revision	2017-11-30
Course syllabus valid from	Autumn 2009

### **Specific entry requirements**

At least grade E at all courses on term 1 and at the course Biomedical communication 1 (4BI005) and at least 5 ECTS from other courses at term 2.

### **Objectives**

After the course the student should

- o be able to suggest a suitable state-of-the-art methodology to address a research question on molecular mechanisms of a nutritional factor and the role of a nutritional factor for development of a disease.
- o be able to analyse state-of-the-art research in molecular nutrition and identify future research needs and give scientifically based advice to authorities.
- o be able to explain molecular mechanisms for some nutritional factors and their role in development of disease.
- o be able to make theories and reflect on the connections between the molecular mechanisms of different nutritional factors as well as on the connections between nutritional factors and development of diseases.
- o show knowledge about how dysregulation of transcriptional networks can be the cause of metabolic diseases and cancer including the latest developments in this field which the student can apply and undertake in future studies in her/his research projects.

## Content

The course covers modern methods used in molecular nutrition research, state-of-the-art knowledge in the molecular mechanisms that mediate the effects of dietary factors in the development of diseases and recent breakthroughs in understanding transcriptional regulation in metabolic diseases and in cancer.

## Teaching methods

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

## Examination

The course will be examined by results of assignments, presented orally or written.

A student who does not pass the examination on the first occasion is offered a maximum of two additional opportunities to sit the examination. If a student has not passed the examination after a total of three attempts then it is recommended that the student repeat course at the next occasion. Following this the student is permitted to sit the examination on another two times. A student who fails the examination on six occasions is not permitted to sit the examination again or to retake the course.

Participation in an examination is defined as an occasion on which a student attends an examination, even if the student submits a blank examination paper. If a student has registered to sit an examination, but does not attend the examination, this is not defined as participation in the examination.

Compulsory attendance

Attendance in seminars and group work is compulsory. The course leader decides if and how to compensate any absence from compulsory activities.

## Transitional provisions

The course has been **cancelled**.

## Other directives

The course language is English.

## Literature and other teaching aids