

# Syllabus

for course at first level

**The Biochemistry of the Brain, Introductory Course**  
**Hjärnans biokemi, orienteringskurs**

**7.5 Higher Education  
Credits**  
**7.5 ECTS credits**

<b>Course code:</b>	KN1001
<b>Valid from:</b>	Autumn 2008
<b>Date of approval:</b>	2007-10-15
<b>Department</b>	Department of Biochemistry and Biophysics
<b>Subject</b>	Chemistry
<b>Specialisation:</b>	G1N - First cycle, has only upper-secondary level entry requirements

## Decision

This syllabus has been approved by the Board of the Faculty of Science at Stockholm University.

## Prerequisites and special admittance requirements

Basic eligibility.

## Course structure

Examination code	Name	Higher Education Credits
N101	The Biochemistry of the Brain	7.5

## Course content

This course provides an introduction to brain structure and function and the underlying causes for various neurodegenerative diseases. The course covers basic neurochemical concepts such as nervous system cells, blood-brain barrier, brain development, electrical impulses, ion channels and pumps. In addition, the course covers chemical signal transmission, neurotransmitters and receptors, mental illnesses and neurotoxins. The course also discusses the effects of drugs and other toxins on the nervous system and the chemistry behind feelings and sensations. The course is related to certain themes related to the research at the department, such as Alzheimer's disease and the effects of chemicals in the nervous system.

## Learning outcomes

The student is expected understand basic neuroanatomical and neurochemical concepts as well as give an account of some fundamental neurochemical processes.

## Education

Lectures

## Forms of examination

- Measurement of knowledge takes place through written examination
- Grading is carried out according to a 7-point scale related to learning objectives:

A = Excellent, B = Very Good, C = Good, D = Satisfactory,

E = Sufficient, Fx = Fail, F = Fail.

c. Grading criteria for the course will be distributed at the start of the course.

d. A minimum grade of E on the written exam is required to pass the course

e. Students who fail to achieve a pass grade in an ordinary examination have the right to take at least further four examinations, as long as the course is given. The term "examination" here is used to denote also other compulsory elements of the course. Students who have achieved a pass grade on an examination may not retake this examination in order to attempt to achieve a higher grade. Students who have failed to reach a pass grade on two occasions have the right to request that a different teacher be appointed to set the grade of the course. A request for such appointment must be sent to the departmental board.

### **Interim**

Students may request that the examination is carried out in accordance with this syllabus even after it has ceased to apply. This right is limited, however, to a maximum of three occasions during a two-year-period after the end of giving the course. A request for such examination must be sent to the departmental board.

### **Limitations**

The degree Bachelor of Science at Stockholm University, can normally not contain more than 15 credits of courses classified as introductory courses. Introductory courses can not be included in the Master's degree at the Faculty of Science, Stockholm University.

### **Misc**

The course is studied as an individual course and is taught only in Swedish.

### **Required reading**

Course literature is decided by the departmental board and is described in an appendix to the syllabus.