Faculty of Science

BIOR58, Biology: Neurobiology, 15 credits

Biologi: Neurobiologi, 15 högskolepoäng

Second Cycle / Avancerad nivå

Details of approval

The syllabus was approved by Study programmes board, Faculty of Science on 2008-06-11 and was last revised on 2014-12-18. The revised syllabus applies from 2014-12-18, spring semester 2015.

General Information

The course is part of the main fields of Biology and Molecular Biology at the Faculty of Science. The course is an optional second-cycle course for a degree of Bachelor or Master of Science in Biology. The course is also offered as a single subject course. The language of instruction is English.

Language of instruction: English

Main field of studies	*Depth of study relative to the degree requirements*
Molecular Biology	A1N, Second cycle, has only first-cycle course/s as entry requirements
Biology	A1N, Second cycle, has only first-cycle course/s as entry requirements

Learning outcomes

Knowledge and understanding

On completion of the course the student shall be able to:

- explain the structure and function of different cell types in the nervous system
- describe the structure of the nervous system in different animal groups, and its evolution and development
- explain neurophysiological principles
- account for how behaviour, memory, and higher cognitive functions are generated and mediated by the nervous system

Competence and skills
On completion of the course the student shall be able to:

- carry out simple neurobiological experiments
- present results of neurobiological studies orally and in writing

Judgement and approach
On completion of the course the student shall be able to:

- evaluate and compile information from scientific papers in neurobiology
- discuss neurobiology issues with colleagues

Course content

The course addresses basic aspects of the structure and function of neurons, signalling between and within neurons, the structure, evolution, development, and regeneration of the nervous systems, and neural control of behaviour and higher cognitive functions

Course design

The teaching consists of teaching sessions, group seminars, a journal club where the students present scientific articles, and laboratory sessions and exercises. Participation in group seminars, laboratory sessions (including laboratory reports), exercises and the journal club, and thereby other integrated teaching, is compulsory if not stated otherwise in the schedule.

Assessment

Examination takes place continuously during the course in the form of written examinations and through compulsory components. For students who have failed at regular examination sessions, further examination sessions in close connection to these are offered.

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

Grades

Marking scale: Fail, Pass, Pass with distinction.
To pass the course, passed exams, passed laboratory reports, and active participation in compulsory parts of the course are required The final grade is decided through a joining of the results on examinations and compulsory components.

Entry requirements

To be admitted to the course, students must have passed:

English B and knowledge equivalent to 90 credits of scientific or technical studies including knowledge equivalent to at least 7.5 credits of cell biology and 7.5 credits of zoology or physiology.

Subcourses in BIOR58, Biology: Neurobiology

Applies from H13

0811 Theory, 9,0 hp
Grading scale: Fail, Pass, Pass with distinction
0812 Seminar, 3,0 hp
Grading scale: Fail, Pass, Pass with distinction
0813 Laboratory Work, 3,0 hp
Grading scale: Fail, Pass, Pass with distinction

Applies from H08

0801 Biology: Neurobiology, 15,0 hp
Grading scale: Fail, Pass, Pass with distinction