Faculty of Medicine

VMFB34, Neuroscience for Future Leaders, 7.5 credits
Neurovetenskap för framtidens ledare, 7,5 högskolepoäng
First Cycle / Grundnivå

Details of approval

The syllabus was approved by The Master's Programmes Board on 2023-05-23 to be valid from 2023-05-30, spring semester 2024.

General Information

This is a freestanding course with general entry requirements.

Language of instruction: English

Main field of studies	Depth of study relative to the degree requirements
Medicine	G1N, First cycle, has only upper-secondary level entry requirements

Learning outcomes

Knowledge and understanding
On completion of the course, students shall on a basic level be able to:

- give an account of the nervous system's structure and how the different parts of the brain interact to control our behaviour
- give an account of the basic structure and function of neurons and how neurons communicate with one another and other parts of the body
- describe methods that are used to obtain knowledge about the nervous system
- give an account of how the brain takes in information from the surroundings via our senses
- describe how different psychoactive drugs influence the brain and behaviour
- describe myths about the brain and explain why these are incorrect

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

- search for, review and compile information about the brain from literature

databases and from the media
  • write about and provide feedback on popular science articles about the brain in a professional way

Judgement and approach

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

  • respectfully discuss issues about the brain based on scientific evidence, orally and in writing
  • reflect on ethical issues that concern neuroscience.

Course content

This course is aimed at people who want to obtain a basic understanding of how the brain functions and, based on this knowledge, be able to understand and evaluate the evidence value in articles about the brain in both popular science and research journals. During the course, students will learn about the structure of the brain, its functions and how the brain is influenced by different factors. A strong emphasis will be placed on the student being able to review and in a scientifically correct way discuss material that is written and said about the brain in the media. The course covers how the nervous system develops, its structure and how it functions. The course consists of four modules with overlapping themes.

  • **Module 1** covers the structure of the brain, the functions of different parts of the brain and how different parts of the brain interact with one another to control behaviour.
  • **Module 2** covers methods of studying the function of the brain, the possibilities and limitations of these different methods, and how to find reliable information about the brain.
  • **Module 3** covers how the brain interacts with the surroundings via the senses and muscles, and how genes and environmental factors, such as sleep, exercise, diet and drugs influence the brain.
  • **Module 4** covers how the brain is portrayed in the media and the common myths about the brain that exist.

Course design

The course combines lectures on the brain and methods with active learning components that require preparation on the part of the student. The student is expected to act professionally and participate constructively in the working group in order for the group to make progress. To achieve the stated skills and to exercise their abilities relating to judgement and approach, the student will focus on a popular science text about the brain during the course and compare this with published research articles.

Assessment

An individual written assignment and feedback on the assignment of a fellow student constitute the basis for assessing the course learning outcomes relating to skills, and judgement and approach, and are included in a course portfolio. The learning outcomes of the course are continuously assessed by multiple-choice questions that relate to the content of the four modules.

1) Course portfolio 5 credits (Fail/Pass)

2) 2,5 (9 credits, Fail/Pass)

Other forms of examination may be used if there are special reasons.

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

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

Grades

Marking scale: Fail, Pass.
A grade of Pass in all assessed components is required to achieve the grade of Pass as a final grade for the course.

Entry requirements

General requirements for university studies in Sweden

Subcourses in VMFB34, Neuroscience for Future Leaders

Applies from V24

2401   Course portfolio, 5,0 hp
         Grading scale: Fail, Pass
2402   Multiple-choice questions, 2,5 hp
         Grading scale: Fail, Pass