Faculty of Social Sciences

PSYF58, Psychology: Cognitive Neuroscience - Higher Cognitive Functions, 15 credits

Psykologi: Kognitiv neurovetenskap - Högre kognitiva funktioner, 15 högskolepoäng

First Cycle / Grundnivå

Details of approval

The syllabus was approved by the board of the Department of Psychology on 2023-11-14. The syllabus comes into effect 2023-11-14 and is valid from the autumn semester 2024.

General information

The course is given as a freestanding online remote course at first-cycle level and may be included in a Bachelor's degree with psychology as main field of study.

Language of instruction: English

Main field of study	*Specialisation*
Psychology	G1N, First cycle, has only upper-secondary level entry requirements

Learning outcomes

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

Knowledge and understanding

- Evaluate the relevant neurocognitive theories related to higher cognitive functions, such as attention, memory, language, thinking, problem-solving, cognitive control, decision-making and consciousness
- Evaluate how emotions affect higher cognitive functions such as attention, memory and decision making
- Demonstrate knowledge about different types of brain damage and psychotic syndromes

Competence and skills

- Apply cognitive neuroscience theory in the understanding of everyday phenomena
- Conduct small empirical studies about cognitive functions, and report the results of the studies in accordance with the international standards for the publication of empirical research in psychology
- Search for and evaluate scientific information in cognitive neuroscience
- Communicate knowledge within cognitive neuroscience to different audiences

Judgement and approach

- Evaluate scientific information in the field of cognitive neuroscience and use a critical approach to reflect on modern theories and research results in the area

Course content

Through theoretical studies and practical exercises, the course aims to convey knowledge about key areas of modern cognitive neuroscience, such as attention, memory, language, and cognitive control, as well as emotions and social interaction. The understanding of normal function is the primary focus of the course, but clinical examples will also be used, as they provide substantial illustrations of normal functioning. Furthermore, the course aims to provide knowledge about relevant research methods within the area, and major emphasis will be placed on the interdisciplinary nature of the subject.

The course consists of two parallel components.

Component 1 - Theory (10 credits)
Component 1 focuses on higher cognitive functions, such as, attention and cognitive control, memory, language, social interaction, problem-solving and thinking and decision-making. Furthermore, component 1 communicates knowledge about the neurocognitive basis of emotion and how cognitive function is influenced by emotion. The component also introduces different types of brain damage and psychosyndromes.

Component 2 - Cognitive laboratory session (5 credits)
After the lectures introducing each higher cognitive function, the student will participate in laboratory demonstrations. During the laboratory demonstrations the students get the opportunity to train important skills for conduction of empirical studies in cognitive neuroscience, including reporting of the results in accordance with the international norms for publication in the psychology.

Course design

The teaching consists of lectures, laboratory sessions and seminars. Attendance at seminars and laboratory sessions is compulsory. Unless there are valid reasons to the contrary, participation is compulsory. The opportunity to compensate for or resit compulsory components will be offered to students who have been unable to participate due to circumstances beyond their control such as accidents, sudden illness or similar. This also applies to students who have missed teaching sessions due to work as a student representative.

Assessment

The assessment includes written examination (component 1), a compulsory laboratory report (component 2), and active participation in compulsory seminars. Three exam sessions are offered in connection with the course: a first examination, a resit and a catch-up exam. Within a year of the end of the course, at least two additional examination opportunities are offered on the same course content. After this, further re-examination opportunities are offered but in accordance with the current course syllabus.

The assessed components of the course are listed in an appendix at the end of this document.

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.

Grades

Grading scale includes the grades: Fail, Pass, Pass with distinction
The student's grade is assessed based on how well the student fulfils the learning outcomes of the course. Regarding the grade of Fail, the student has not fulfilled the learning outcomes of the course. For the grade of Pass, the student must fulfil the learning outcomes specified for the course. For the grade of Pass with Distinction, the student must also fulfil the learning outcomes particularly well. The grades awarded for compulsory teaching components are Pass or Fail. For the grade of Pass, the student must show acceptable results. For the grade of Fail, the student has shown unacceptable results. To receive the grade of Pass for the whole course, at least the grade of Pass is required in all modules and components. To receive the grade of Pass with Distinction for the whole course, the grade of Pass with Distinction is required in a majority of the total credits for the course based on the modules/components that can apply the grades Fail/Pass/Pass with Distinction. At the start of the course, the students are informed about the learning outcomes stated in the syllabus and the grading scale, and how this is applied during the course.

Entry requirements

General requirements and studies equivalent of courses Social Studies 1b or 1a1+1a2 from Swedish Upper Secondary School.

Further information

The course corresponds to extent and contents the module Higher Cognitive Functions in PSYD53 Cognitive Neuroscience, 30 credits.