



Exchange programme Vrije Universiteit Amsterdam

Vrije Universiteit Amsterdam - Exchange programme Vrije Universiteit Amsterdam - 2024-2025

Exchange

Vrije Universiteit Amsterdam offers many English-taught courses in a variety of subjects, ranging from arts & culture and social sciences, neurosciences and computer science, to economics and business administration.

The International Office is responsible for course approval and course registration for exchange students. For details about course registration, requirements, credits, semesters and so on, please [visit the exchange programmes webpages](#).

Cognitive Neuroscience

Course Code	AB_1056
Credits	6
Period	P1
Course Level	300
Language Of Tuition	English
Faculty	Faculty of Science
Course Coordinator	dr. C.P.J. de Kock
Examiner	prof. dr. M.P. van den Heuvel
Teaching Staff	dr. C.P.J. de Kock, dr. S. van der Sluis, dr. P. Rao MSc, prof. dr. S. Spijker
Teaching method(s)	Study Group, Practical, Lecture, Computer lab

Course Objective

Introduction to the field of cognitive neuroscience: understanding the biological mechanisms underlying cognitive processes such as learning and memory, discussing recent developments in the field with leading scientists, and acquiring knowledge on how the brain, and its different cell types, systems, and function.

Course Content

In the first course of this Minor, you will learn the basics of cognitive neuroscience through a series of introductory lectures on brain function and (dysfunctional) cognitive behavior. More specifically, we will teach you the structure and function of the major building blocks of the brain, ranging from single cells to neuronal networks, and from emotion to motor control. We combine workshops and keynote lectures, delivered by renowned neuroscientists, to discuss recent advances in the field of learning and memory, brain plasticity, and brain disease (e.g., developmental disorders, Angelman syndrome, PTSD). Finally, you will learn about frontier brain imaging methods (e.g. MRI) and experience various technical approaches to measure the brain (e.g., histology) in hands-on practicals.

Additional Information Teaching Methods

Teaching and learning activities will be scheduled on campus (by estimation) 2 times/week. Additional activities include individual assignments, group assignments, computer programming and self study.

Method of Assessment

Written exam & assignments

Entry Requirements

This course is part of the minor Brain and Mind. University students need at least 90 ECTS to be eligible for (courses in) this minor. HBO students can follow (courses in) this minor if they have at least 120 ETCS.

Literature

Recent literature, to be announced at the start of the course.

Foundations of Behavioral Neuroscience, Carlson, Neil R. (9th edition)

Exam material:

CH2, CH3, CH5, CH6 (pg. 136 - 146), CH7 & CH12

Additional Information Target Audience

Open to students from all educational backgrounds (e.g., exact, social, life and economic sciences) with an interest in the brain and mind.

Due to curriculum overlap, students from Biomedical Sciences and Health and Life Sciences from the VU cannot follow this course.

Additional Information

- Coordinators: Christiaan de Kock and Martijn van den Heuvel.
- No special requirements to be met.
- Part of minor Brain and Mind.
- This minor course requires a minimum of 25 participants to take place.