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.

Research toolbox

Course Code	P_BRESTBX
Credits	6
Period	P2
Course Level	300
Language Of Tuition	English
Faculty	Faculty of Behavioural and Movement Sc.
Course Coordinator	dr. J.J. Snell
Examiner	dr. J.J. Snell
Teaching Staff	dr. J.J. Snell
Teaching method(s)	Practical, Lecture

Course Objective

Students will learn about important methods and paradigms used in cognitive psychology. They will receive hands-on experience in conducting an experiment, and consolidate their skills in analyzing data and reporting results. In all, they acquire a 'toolbox' with which to unravel human cognitive functioning.

In Research Toolbox we have four key objectives. At the end of the course, you will be able to:

(i) Critically assess and evaluate the validity of scientific studies;
(ii) Use various research methodologies, in terms of techniques (behavioral tasks, eye-tracking, pupillometry), experimental design (counterbalancing, Latin-square) and analysis (Linear Mixed Modelling);
(iii) Translate a research question into a valid experimental design;
(iv) Analyze and report data in the format of a scientific paper

Course Content

In this course, you will learn to apply the instruments, methods and tricks that cognitive psychologists have up their sleeve for investigating cognition. You will gain practical experience in the whole research process: translating a research question into a good experimental design, collecting behavioral data, analyzing data, and writing a report.
How can we use simple behavioral measures such as response time and accuracy to learn about the brain? And what can we learn from more complex measures, such as eye movements and pupil size? What variables do we have to take into account when designing an experiment, so that our results are not susceptible to alternative explanations and that we can safely draw conclusions? These things will be covered in this course.
All in all, the course should optimally prepare you for your bachelor’s thesis project—and potentially for a career in science.

Additional Information Teaching Methods

The course comprises three components that largely proceed in parallel. Component 1 consists of several workshops in which we learn and practice techniques that come in handy when designing an experiment or when analyzing and interpreting data. Component 2 consists of lectures in which we discuss reading materials from which we draw insights both in terms of theory and methodology. For component 3, we collect data with an experiment of our own (in teams), and we analyze this data and write a report.

Method of Assessment

Written exam: 40% of final grade
Research report (prepared in groups): 40% of final grade
Writing an abstract (prepared individually): 10% of final grade
Workshop participation: 10% of final grade

Entry Requirements

Students should at least have done an introductory course to cognitive psychology, and Methodology 1.

Literature

No purchase of literature is required; some papers will be shared on Canvas throughout the course.

Additional Information Target Audience

BA3 students in the track Genes, Brain and Behavior.

Additional Information

Tuition will be in English.
Partial grades are only valid during the study year in which the grade has been achieved.

Recommended background knowledge

Research Methods 2 (Methodologie 2)
Statistics 2 (Statistiek 2)