Methods in neuroeconomics and neurofinance (2 ECTS in LNDS)

General information

Title: Methods in Neuroeconomics and Neurofinance
Time: Wednesday 9.15-13.00 (every other week)
Dates: 1.3. / 15.3. / 29.03.* / 12.4. / 3.5.* / 17.5. / 31.5.
(in weeks marked with * 4-hour experimental sessions will replace class; depending on class size some students will have their session on a day other than Wednesday)
Location: (to be announced)
Instructor: Prof. Kerstin Preuschoff
E-Mail: kerstin.preuschoff@unige.ch
TA: Mohsen Falahi
E-Mail: mohsen.falahi@unige.ch

Overview

Interdisciplinary research in neuroeconomics integrates experimental methods and models from different fields such as neuroscience, economics, psychology and computer science. This course covers the most frequently used methods in neuroeconomics and neurofinance. It discusses how they can be combined and what their power and limitations are. Two of the sessions will take place in the behavioral lab where students will conduct and participate in their own experiments.

By the end of the semester students will be able to
- Design and conduct a behavioral experiment.
- Explain key methods in neuroeconomics.
- Prepare a research report (oral or written) to present experimental data.
- Choosing appropriate research methods for a given research question.
- Describe standard models of decision making and learning.
- Interact and discuss with fellow students in class in a constructive way.

The course will be taught in the form of 4-hour long workshops. Some workshops will introduce different methods and models in decision making. Others will take place in the behavioral lab where students will learn to conduct a behavioral experiment.

Topics include behavioral experiments, neuroimaging methods, models of decision-making and learning and understanding what you can and cannot do with different methods.

Taking “Introduction to Neuroeconomics and Neurofinance”, also offered in the spring will be helpful but is not necessary.

Requirements

A background in economics, neuroscience, psychology, computer science or related field. An interest in interdisciplinary research.
Basic knowledge in statistics.

Evaluation

Term paper