# PSYB17-134 Research Methods Practical 4.

## Aim of the course

### Aim of the course:

The aim of the course is to acquint students with the methods and principles of scientific experimentation in psychology. Students will become able to formulate testabe hypotheses and select the appropriate methods for conducting experiments and analyzing data. They will also learn to critically evaluate research methods and alternative interpretations of results.

### Learning outcome, competences

knowledge:

- formulating testabe hypotheses and select the appropriate methods for conducting experiments and analyzing data

attitude:

- a competecy in experimental research method, analytic attitude

skills:

- critical evaluation of research methods and alternative interpretations of results

## Content of the course

### Topics of the course

1. Introduction – the basic principles of experimentation
2. Types of variables, experimental design
3. Development of the research plan and protocol
4. Specific experimental methods in psychology 1.
5. Specific experimental methods in psychology 2.
6. Data analyses
7. Interpreting results
8. Publication
9. Mid-term
10. Presentation and discussion of students' research 1.
11. Presentation and discussion of students' research plans 2.
12. Conducting pilot experiments
13. Presentation of pilot results
14. Semester closing

### Learning activities, learning methods

lectures, interactive discussion, project work

## Evaluation of outcomes

### Learning requirements, mode of evaluation, criteria of evaluation:

requirements

- A 10-minute-long presentation of a chosen experimental paradigm in pairs.
- Mid-term exam from the materials covered during the first half of the semester, including student presentations.
- In groups of three, students will design an experiment in a freely chosen topic in psychology. The groups will first present their ideas to the class in 15 minutes, which will be followed by a discussion with the whole group. Research plans will be finalized based on the discussion and students will be required to collect pilot data (5

participants per condition). The preliminary data will be presented at the last class. Students are also required to contribute to the discussion and give feedback to the research plans of others.

mode of evaluation: written mid-term exam, presentations

criteria of evaluation:

- Presentation of a paradigm: 15 %
- Mid-term: 50%
- Research plan: 35 %. Criteria of evaluation include thoroughness in designing the experiment, mode of presentation and the application of the knowledge acquired during the semester.

## Reading list

### Compulsory reading list

- Materials of the lessons
- Davis, S.F. (Ed.). (2005). *Handbook of Research Methods in Experimental Psychology*. Oxford, UK: Wiley- Blackwell

### Recommended reading list

- Clarke, V. and Braun, V. (2013) Successful qualitative research: A practical guide for beginners. London: Sage.