

COURSE TITLE: **GENERAL PSYCHOPHYSIOLOGY**

LECTURER: Jakub Staněk

MINIMAL NUMBER OF STUDENTS: 5 ECTS CREDITS: 4

AVAILABLE FOR: psychology students preferred

#### ABOUT THE COURSE:

This course will provide an overview of the basic principles, theory, and applications of psychophysiological science. The course has two goals:

1. to provide an introduction to the basic theory and research in major areas of human psychophysiology, with an emphasis on the psychophysiological correlates of cognition, affect, and psychopathology; and
2. to provide an introduction to laboratory techniques and methodological principles in human psychophysiology.

For this reason, the course is designed around the use of student laboratory devices from the BIOPAC Systems, Inc.

#### COURSE STRUCTURE:

The course will involve a combination of lectures, discussion, and the students' own experiences with demonstrations and practical lessons.

##### Lecture topics:

- basic principles of psychophysiology
- basics of neuroanatomy and neurophysiology
- brain activity and electrodermal activity
- muscle activity and eye activity
- heart activity

For the laboratory exercises the students will be divided into groups. The lessons dealing with measurement are:

- Lesson 1: Standard & Integrated EMG (muscle activity)
- Lesson 2: Components of the ECG (Lead II) (heart activity)
- Lesson 3: Leads I, II, and III & Einthoven's Law (heart activity)
- Lesson 4: EEG Relaxation & Brain Rhythms
- Lesson 5: Alpha Rhythms in the Occipital Lobe
- Lesson 6: GSR and Polygraph
- Lesson 7: EOG Eye Movement, Saccades & Fixation
- Lesson 8: Reaction Time