

UPPSALA UNIVERSITY  
Department of Psychology

## **Biological Psychology**

Selectable PhD Course within the subject of psychology, 7.5 credits

### **Course Syllabus**

#### **Aims**

Having taken the course, the student should:

- Be able to outline the main structures of the human brain in terms of both location and function.
- Have basic knowledge about the brain imaging methods EEG and MRI, and know how the signal in each method is generated and should be interpreted.
- Be able to describe how key cognitive functions like attention, executive functions, and memory are organized in the brain.
- Have basic knowledge about how neurochemistry regulates our behavior and is related to psychiatric conditions.
- Be able to describe the brain's development both in the fetus and in aging.

#### **Contents**

Biological psychology is an interdisciplinary field where psychological functions such as behavior, emotions and cognition are studied using a biological approach. The course will provide a global perspective on the brain and its organization, both in terms of structure and neurochemistry, and will cover how cognitive functions are organized in the brain, the development and aging of the brain, examples of neurological/psychiatric conditions, and neurorehabilitation.

#### **Teaching**

Teaching will consist of lectures and literature seminars. Lectures and seminars may be in English.

#### **Course Literature**

- Kalat, J.W. (2015). *Biological Psychology* (12th ed). (512 pages)
- Scientific peer-reviewed articles, and book chapters, specified in a separate literature list provided at the beginning of the course.

## Examination

The course will be examined by means of a written exam done individually. In addition, students are expected to participate actively in the seminars and write a short report where the content of the course is applied to the student's own research. Grading will be done in terms of pass or fail.