

## Biological Excursions in the Human Brain (C002755)

Due to Covid 19, the education and evaluation methods may vary from the information displayed in the schedules and course details. Any changes will be communicated on Ufora.

Course size (nominal values; actual values may depend on programme)  
Credits 5.0 Study time 135 h Contact hrs 40.0 h

Course offerings in academic year 2020-2021

Deze cursus is 2-jaarlijks en wordt niet aangeboden

Lecturers in academic year 2020-2021

Raedt, Robrecht	GE34	lecturer-in-charge
Larsen, Lars Emil	GE34	co-lecturer

Offered in the following programmes in 2020-2021

	crdts	offering
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Teaching languages

English

Keywords

Neurobiology, Brain, Human, Behavior.

Position of the course

The goal of this course is to give the student insight in the structure and function of the human brain. A lot of attention is spent on the ontogenetic and phylogenetic evolution of the brain: during evolution and individual development the brain is changing a lot which is reflected by behavioral changes. Brain function and behavior is heavily influenced by different internal (e.g. hormones, epigenetic changes) and external (e.g. environment) factors. Strong progress in genetic understanding and technology has led to a revolution in neurobiological research techniques. Several state-of-the-art research techniques in the field of neurosciences are discussed.

Contents

- 1 Origins of brain and behavior.
- 2 How does the nervous system function?
- 3 Which are the functional unit of the nervous system?
- 4 How do neurons use electrical and chemical signals to communicate?
- 5 How do drugs and hormones influence our brain and behavior?
- 6 How do we study brain and behavior?
- 7 How does the brain develop and adapt?
- 8 How do we sense, perceive and see the world?
- 9 How do we hear, speak and listen to music?
- 10 What causes emotional and motivated Behavior?
- 11 Why do we sleep and dream?
- 12 How do we learn and remember?
- 13 How do our brains think?

Initial competences

Basic knowledge of anatomy, physiology and chemistry.

Final competences

- 1 Insight in structure and function of the brain.
- 2 Implement neurobiological knowledge to explain (human) behavior.
- 3 Knowledge about state-of-the-art research techniques in the field of neurosciences.

Conditions for credit contract

Access to this course unit via a credit contract is determined after successful competences assessment

#### Conditions for exam contract

This course unit cannot be taken via an exam contract

#### Teaching methods

Lecture, seminar

#### Learning materials and price

- Syllabus
- Cost: €10

#### References

- 'Introduction to Brain and Behavior (4th Edition)'. Bryan Kolb and Ian Q Wishaw, Worth Publishers, USA (2014).

#### Course content-related study coaching

- Interactive support using Ufora
- By personal appointment

#### Evaluation methods

end-of-term evaluation

#### Examination methods in case of periodic evaluation during the first examination period

Written examination

#### Examination methods in case of periodic evaluation during the second examination period

Written examination

#### Examination methods in case of permanent evaluation

#### Possibilities of retake in case of permanent evaluation

examination during the second examination period is possible

#### Calculation of the examination mark

written exam: 100%