GHENT UNIVERSITY

Course Specifications

Valid as from the academic year 2026-2027

Neurobiology of Affective Disorders (H001992)

Course size *(nominal values; actual values may depend on programme)*

Credits 4.0 **Study time 120 h**

Course offerings and teaching methods in academic year 2026-2027

A (semester 1)	English	Gent	lecture
E (semester 1)	English	Gent	lecture

Lecturers in academic year 2026-2027

Pourtois, Gilles	PP21	lecturer-in-charge

Offered in the following programmes in 2026-2027	**crdts**	**offering**
Bachelor of Science in Psychology(main subject Clinical Psychology)	4	A
Virtual Mobility	4	E
Master of Science in Psychology(main subject Clinical Psychology)	4	A
Master of Science in Psychology(main subject Theoretical and Experimental Psychology)	4	A
Master of Science in Biomedical Sciences	4	A
Exchange Programme in Psychology	4	A

Teaching languages

English

Keywords

Neurobiology, Experimental psychopathology, Affective disorders, Neuroscience methods

Position of the course

Neurobiology of Affective Disorders is a bachelor (clinical psychology track) and master course (theoretical and experimental psychology track) which gives the students an extensive introduction of the most prevalent affective disorders, their genetic or environmental causes, the underlying brain mechanisms as well as new clinical methods to treat them. This course is optional and can be chosen in specific tracks.

Contents

This course covers the following topics:

- To cover a broad scope of existing and prevalent emotional disorders (anxiety disorders, depression, bipolar disorder, personality disorders, psychopathy, substance abuse, schizophrenia ...).
- For each of them, carefully introduce and review its actual neurobiological bases, from multiple angles (function, structure, neurotransmission and neurochemical factors). Because many of these disorders have distinctive neurobiological grounds and neural correlates, this course will contribute to help refine and improve the factual knowledge regarding the differential diagnosis and symptoms of these emotional disorders.
- A clear transdiagnostic approach/theory (i.e., to identify common/generic vulnerability factors affecting the genesis and maintenance of these disorders) will be adopted. Moreover, throughout the course, a special emphasis will be put on translational research, enabling bridging the gap between these neuroscience

findings (and hallmarks of these disorders) and clinical practice.

Initial competences

This course unit builds on certain course competencies of Cognitive psychology and Methods in psychology.

Final competences

1 To consider and explain current models and taxonomies in psychiatry (and experimental psychopathology) in a critical manner
2 To learn and be able to describe different neuroscientific (brain-imaging) methods
3 To discuss a translational and transdiagnostic approach (and model) in psychiatry
4 To link neuroscientific evidence with concrete (clinical) cases or observations in the practice, and the other way around
5 To compare different conceptions and models in psychiatry, and to list their respective predictions, advantages, and drawbacks
6 To use different levels of analysis in order to better consider and understand psychiatric disorders
7 To find and discuss possible solutions for the problems pertaining to both the diagnosis and treatment of psychiatric disorders
8 To evaluate dynamic interaction effects occurring in different brain networks and report specific impairments arising in these networks as a result of genetic and/or environmental factors
9 To identify the tight links between cognition and emotion

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

Extra information on the teaching methods

The lectures are recorded (in the absence of technical difficulties). The lecture recordings are made available the day after each lecture and remain online until after the second exam session.
This course assumes the responsible use of generative artificial intelligence (GAI). During the lessons, what this means will be explained.

Study material

Type: Slides

Name: Slides of the lectures
Indicative price: Free or paid by faculty
Optional: no
Language : English
Available on Ufora : Yes

Type: Other

Name: One scientific article per lecture
Indicative price: Free or paid by faculty
Optional: no
Language : English
Available on Ufora : Yes

References

Bishop, S.J. (2007). Neurocognitive mechanisms of anxiety: an integrative account. Trends in Cognitive Sciences, 11(7):307-16.
Hariri, A.R., Drabant, E.M., & Weinberger, D.R. (2006). Imaging genetics: perspectives from studies of genetically driven variation in serotonin function and corticolimbic affective processing. Biological Psychiatry, 59(10):888-97.
Holtzheimer, P.E., & Mayberg, H.S. (2011). Deep brain stimulation for psychiatric disorders. Annual Review of Neuroscience, 34:289-307.
Lau, J.Y.F., & and Eley, T.C. (2010). The genetics of mood disorders. Annual Review of Clinical Psychology, 6:313-37.

Phan, K.L., Coccaro, E.F., Angstadt, M., Kreger, K.J., Mayberg, H.S., Liberzon, I., & Stein, M.B. (2013). Corticolimbic Brain Reactivity to Social Signals of Threat Before and After Sertraline Treatment in Generalized Social Phobia. Biological Psychiatry, 73(4):329-36.

Course content-related study coaching

- Interactive support using Ufora.
- Via email.
- By appointment.

Assessment moments

end-of-term assessment

Examination methods in case of periodic assessment during the first examination period

Written assessment with open-ended questions

Examination methods in case of periodic assessment during the second examination period

Written assessment with open-ended questions

Examination methods in case of permanent assessment

Possibilities of retake in case of permanent assessment

not applicable

Calculation of the examination mark

Written exam counts for 100% of the final mark.