GHENT UNIVERSITY

Course Specifications

Valid as from the academic year 2024-2025

Clinical Neurology (D012510)

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

Credits 6.0 **Study time 150 h**

Course offerings and teaching methods in academic year 2024-2025

A (semester 1)	English	Gent	
B (semester 2)	English	Gent	lecture

Lecturers in academic year 2024-2025

Vonck, Kristl	GE34	lecturer-in-charge
Carrette, Evelien	GE34	co-lecturer

Offered in the following programmes in 2024-2025	**crdts**	**offering**
Master of Science in Biomedical Sciences	6	A, B

Teaching languages

English

Keywords

Neurology, clinical neurophysiology, clinical neuroanatomy, neurological disorders, neurosciences, translational research, clinical trials

Position of the course

Neurological disorders represent 30% of the total 'burden of disease' in man. The 'Clinical Neurology' course provides an overview of the most relevant neurological conditions. The aim is both to integrate neuroanatomical, neurophysiological and neurobiological knowledge and to provide the necessary context for an optimal current understanding of the pathophysiology, epidemiology, diagnosis and treatment of neurological diseases. In this way the basis is provided and acquired for performing research in the field of neurosciences. When acquired knowledge from neuroscience research is translated into clinical practice, it is important to be knowledgeable and the strategies and regulatory issues for translating pre-clinical research into clinical trials. Part of this course will therefor focus on several aspects of performing a clinical trial within a neurological context. The discussed topics will be applicable for a broader field of clinical trials.

Contents

The course consists of a series of chapters on the most relevant neurological disorders, illustrated with a wide variety of clinical and imaging case content.
During the course, a power-point slide show will be used.
The course consists of the following chapters:
chapter 1: Introduction
chapter 2: Development of the nervous system
chapter 3: Anatomical and physiological basis of the nervous system
chapter4: Motor functions of the nervous system
chapter 5: Sensibility
chapter 6: Higher cortical functions
chapter 7: Clinical Neurological exam
chapter 8: Localizing syndromes
chapter 9: Disorders of the spine
chapter 10: Periferal nervous system disorders
chapter 11: Muscle disorders
chapter 12: Stroke
chapter 13: Headache

chapter 14: Tumors
chapter 15: Infections
chapter 16: Braintrauma
chapter 17: Epilepsy
chapter 18: Parkinson's disease
chapter 19: Multiple sclerosis
chapter 20: Dementia
Chapter 21: The transition of preclinical research to clinical trials
Chapter 22: Patents and intellectual property
Chapter 23: The role of the industry and clinical research organizations (CRO-companies) in cllinical translational research

Initial competences

For further information on this topic please download https://qas.oasis.ugent.be/oasisweb/curriculum/voorkennisvancursus?cursuscode=D000002&taal=nl.
Having successfully completed the courses General physiology, Physiology of the organ systems,Structure and development of the Human Body I, Structure and development of the Human Body II, Histology of Human Body Systems and Human pathogenesis from the bachelor program biomedical sciences, or having acquired the relevant ending objectives by other means.
Having successfully completed the bachelor Biomedical Sciences or having acquired the relevant ending objectives by other means.

Final competences

1 The student has an extensive knowledge and insight in the normal and pathological functioning of the nervous system and in this way in the most relevant neurological disorders.
2 The student is able to integrate basic knowledge of neuroanatomy and neurophysiology in order to achieve a true insight and understanding of the epidemiology, diagnosis, treatment and recent developments in the field of clinical neurology and neuroscience.
3 The acquired knowledge allows the student to understand the current concepts, aims, research questions and innovations in the neurological research and to actively participate in this research effort.
4 The student has knowledge and insight on the effect that both internal and external factors may exert on the functioning of the nervous system
5 The student knows how to translate biomedical research into the field of prevention, diagnosis and treatment of neurological disorders.
6 The student has gained competence on how to translate preclinical findings into clinical applications.
7 The student is knowledgeable about the various types of clinical trials, the role of animal and human ethics committee, the concepts of intellectual property.
8 The student is knowledgeable on the role of the industry and CRO-companies in the translation of preclinical data to clinical trials.

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

Study material

None

References

Course content-related study coaching

Opportunity to ask for feedback, questions related to the course via e-mail and personal appointment when required

Assessment moments

end-of-term assessment

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

Written assessment with multiple-choice questions

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

Written assessment with multiple-choice questions

Examination methods in case of permanent assessment

Possibilities of retake in case of permanent assessment

not applicable

Extra information on the examination methods

20 questions, 5 options, 1 correct answer

Calculation of the examination mark

1 point per correct answer
final score on 20