UCL Université catholique de Louvain

WDENT1211

2015-2016

Neurosciences : neuroanatomy and neurophysiology

6.0 credits	45.0 h + 30.0 h	2q

Teacher(s) :	Olivier Etienne ; Nicaise Michèle ; Jankovski Aleksandar (compensates Olivier Etienne) ;
Language :	Français
Place of the course	Bruxelles Woluwe
Prerequisites :	*The prerequisite(s) for this Teaching Unit (Unité d'enseignement – UE) for the programmes/courses that offer this Teaching Unit are specified at the end of this sheet.*
Main themes :	The aim of the Neuroscience course is to provide the dental students with a sound understanding of the developmental, structural and functional neuroanatomy, together with the neurophysiological bases, necessary to progress in their curriculum, to develop good practical skills and to adapt to the rapidly changing scientific knowledge.
Aims :	The ultimate objectives and goals of the Neuroscience course are to provide an interdisciplinary approach to the understanding of the central nervous system. This course consists of 45 hours of lecture an 30 hours of laboratory sessions. In particular, the course presents knowledge in neuroanatomy and neurophysiology in the specific context of oral bioscience. At the end of this course, the students should be able: - to describe the main structures of the central nervous system, together with their topographical relationships, the cranial nerves, the autonomic system and the five sensory organs, - to be familiar with the neurophysiological basis of the sensory, motor and higher functions in humans, - to demonstrate a comprehensive knowledge of the pathologic consequences that result from nervous system structural damages. *The contribution of this Teaching Unit to the development and command of the skills and learning outcomes of the programme(s) can be accessed at the end of this sheet, in the section entitled "Programmes/courses offering this Teaching Unit".*
Content :	Contents Neuroanatomy deals with the human developmental and structural anatomy of the central, peripheral and autonomic nervous system and with sense organs. The Neuroscience course also presents knowledge and understanding of the main functional system of the brain. Methods Following an introduction by a clinical contextualisation, the topic is approached by analysis of anatomic preparations and of medical imaging documents integrated in PowerPoint, by a classic teaching procedure (drawings on the blackboard) and finally, if appropriate, by a feedback to clinical cases. During practical sessions, coronal, transversal and sagittal sections of the brain are analyzed and dissection of head and the neck are performed; the aim is to develop and to improve the students' knowledge and understanding of head and neck anatomy.
Other infos :	Prerequisites: to be able to visualize the structures three-dimensionally; to have basic knowledge in anatomy (excluding neuroanatomy) and in general physiology about the action potential and synaptic transmission. Assessment during the year: assessment of brain sections description two weeks after the practical session. Aspects of assessment process: oral examinations with written preparation to evaluate the fulfilment of the stated objectives; describe encephalic structures and their topographical relationships; comment the origin, course, distribution and function of cranial nerves. Knowledge in neurophysiology will be assessed by mean of multiple choice questions. Supports: textbooks, syllabus, drawings made during the lectures on the blackboard, complementary notes with drawings, photographs, legends of the most complicated topographical drawings, instructions for practical and examinations and, finally, documents, illustrations and links on the net (iCampus).
Faculty or entity in charge:	MDEN

Programmes / formations proposant cette unité d'enseignement (UE)

Intitulé du programme	Sigle	Credits	Prerequis	Acquis d'apprentissage
Bachelor in Dentistry	DENT1BA	6	WMDS1102 **and** WMDS1103	🔍