UCLouvain

wmede1156

2026

Eléments de biologie cellulaire

3.00 credits	20.0 h + 10.0 h	Q2

Teacher(s)	Constantinescu Stefan (coordinator) ;Pierreux Christophe ;Tyteca Donatienne ;
Language :	French
Place of the course	Bruxelles Woluwe
Learning outcomes	
Evaluation methods	The final assessment covers the theoretical part taught in class by the three teachers and consists of a written exam based on a series of multiple-choice questions (MCQs). The distribution of points is based on the number of hours taught and is equivalent to 50% for Prof. Constantinescu's part and 25% for each of Prof. Tyteca's and Prof. Pierreux's parts. Students are advised not to skip any of the parts or subjects taught. A serious failure in one or more parts/subjects of the exam will be penalized by one or more penalties. The final grade will be decided by the teaching team. The type of assessment chosen for the first exam session may be subject to change depending on the number of students registered for the second exam session.
Teaching methods	The course consists of 20 lectures in the lecture hall and 5 question-and-answer sessions with teaching assistants, which require registration and are therefore held in small groups. The lectures are given using PowerPoint presentations, which are made available to students via the Moodle platform.
Content	The theoretical training aims to (1) demonstrate the benefits of different forms of subcellular compartmentalization; (2) present the structure and biological functions of the plasma membrane, endoplasmic reticulum, Golgi apparatus, endocytic compartments, mitochondria, peroxisomes, nucleus, and cytoskeleton; (3) explain the structure and functions of the extracellular matrix; (4) integrate molecules into this context of subcellular compartmentalization (cellular biochemistry) and extracellular space; (5) introduce some exemplary pathologies that are best explained by cellular biology (cellular pathology). The course aims to identify the forms of organization of living matter at the ultrastructural level, emphasizing topological and scale relationships. Practical training will take the form of questions and answers with teaching assistants; questions from students will focus on the content of the lectures.
Inline resources	Presentations and texts will be available on Moodle.
Bibliography	Des ouvrages de référence en anglais et en français (Biologie moléculaire de la cellule de Lodish, aux éditions De boeck) sont proposés en début d'année et accessibles à la Bibliothèque du Secteur.
Faculty or entity in charge	MED

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Bachelor in Medecine	MD1BA	3		🔍