UCLouvain

wmds1210

2024

Physiologie cellulaire

| Teacher(s) | Gailly Philippe ; | | | | |
|----------------------|--|--|--|--|--|
| Language : | French | | | | |
| 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. | | | | |
| Learning outcomes | | | | | |
| Evaluation methods | The student will demonstrate his/her learning outcomes in a written exam: questions with short answer (QSA) and/ or multiple choice (QMC). | | | | |
| | When QMC are presented, one or more answers are proposed. The student must have all the correct answers to obtain the point. No negative points are counted. | | | | |
| | When QSA are offered, the student must answer in a structured and concise manner in the space provided for the answer. Care and precision are required (remember to give the units of the values used, etc). | | | | |
| Teaching methods | The teaching activity consists of a lecture (55 hours) in the auditorium where the different contents are explained by the teacher in charge of the course. Exercises and demonstrations are carried out in the auditorium (TD 10h). | | | | |
| Content | The teaching is essentially oriented in a physical and physico-chemical perspective: the knowledge acquired in the first year is therefore fundamental. Moreover, physiology is an experimental science: it is from the description of observations that the theories explaining the basic cellular functions are deduced. Finally, special emphasis will be placed on the cellular bases of certain diseases. The practical work is done in large audiences and consists of exercises and demonstrations. Their purpose is to illustrate and explain theoretical concepts. They also introduce the students to the experimental approach and the adequate and precise description of results obtained with simple methods and a critical analysis of the observations. | | | | |
| Inline resources | Course materials: 3 syllabi (Moodle and/or paper copies) | | | | |
| Bibliography | Bibliographie de référence recommandée aux étudiants Ouvrages généraux Purves et al. Neurosciences. De Boeck | | | | |
| | Blaustein, Kao & Matteson : Cellular physiology. Elsevier Mosby | | | | |
| | Sperelakis: Cell physiology. Academic Press | | | | |
| | Boron & Boulpaep : Medical physiology. Saunders | | | | |
| | Flux de matière | | | | |
| | Glaser : Biophysics. Springer Hille : Ion channels of excitable membranes. Sinauer | | | | |
| | Schultz : Basic principles of membrane transport. Cambridge University Press | | | | |
| | Flux d'information et d'énergie | | | | |
| | Aidley: The physiology of excitable membranes. Cambridge University Press | | | | |
| | Cowan, Südhof & Stevens : Synapses. Johns Hopkins | | | | |
| | Kandel, Schwarz & Jessel : Principles of neural science. Appleton & Lange | | | | |
| | Kayser : Physiologie. Livre deuxième : Système nerveux. Muscle. Flammarion | | | | |
| | Meunier & Shvaloff : Neurotransmetteurs. Masson Abrégés Tritsch, Chesnoy-Marchais & Felz : Physiologie du neurone. Doin | | | | |
| Faculty or entity in | MED MED | | | | |
| charge | | | | | |

| Programmes containing this learning unit (UE) | | | | | | |
|---|---------|---------|--------------|-------------------|--|--|
| Program title | Acronym | Credits | Prerequisite | Learning outcomes | | |
| Bachelor in Medecine | MD1BA | 6 | WMDS1110 | • | | |