UCLouvain

lbbmc2104

2019

In view of the health context linked to the spread of the coronavirus, the methods of organisation and evaluation of the learning units could be adapted in different situations; these possible new methods have been - or will be - communicated by the teachers to the students.

5 credits	36.0 h + 18.0 h	Q2

Teacher(s)	Morsomme Pierre ;Page Melissa ;
Language :	French
Place of the course	Louvain-la-Neuve
Main themes	Every year, one particular physio-pathological situation, or a few ones but interconnected, will be studied. An introduction to the topic will be done; then, some recent research articles related to the topic will be analyzed by the students, presented orally in front of the group and further discussed together.Among different possible topics, a particular interest will be devoted to more specific ones.§ Biochemical mechanisms whereby human nutrition affects different cellular and molecular targets and may therefore be involved in a normal metabolic regulation, as well as in pathological deviations.§ Cellular and molecular mechanisms that allow the "major" nutrients to control appetite, to affect glucides and lipids metabolism, to induce intestinal and hepatic dysfunctions, , but also to "minor" food constituents (polyphenols, vitamins,) to reach precise molecular targets, modulating the cellular physiology.§ Cellular and molecular mechanisms that take, in general, place during the interactions of pharmacological agents with cells and within applications to particular tissues or organs, such as cardiovascular or nervous systems or physio-pathological situations such as inflammation
Aims	1 The teaching aims at analyzing some human physio-pathological situations from a biochemical viewpoint, as well as pharmacological implications that could be implicated. Such an approach will be developed, on one hand, by a few lectures on these aspects and, on the other hand, by the analysis of selected research papers on these topics.The aim will consist in learning to understand the implication of biochemical mechanisms in human physio-pathology and to realize how molecular and cellular approaches, but taking into account physiological aspects, allow to understand these situations, as well as to elaborate trends to possible treatments. - - - - *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".*
Evaluation methods	**Due to the COVID-19 crisis, the information in this section is particularly likely to change.** Oral presentation of the group
Teaching methods	**Due to the COVID-19 crisis, the information in this section is particularly likely to change.** Flipped classroom, coaching
Content	The teaching aims at analyzing one human physio-pathological situation from a biochemical viewpoint, as well as nutritional, pharmacological or toxicological implications. The aim will consist in learning to understand the implication of biochemical mechanisms in human physio-pathology, and to realize how molecular and cellular approaches, but taking into account physiological aspects, allow to understand these situations, as well as to elaborate trends to possible treatments or better prevention. Every year, one particular physio-pathological situation, or a few ones but interconnected, will be studied. An introduction to the topic will be done; then, some recent research articles related to the topic will be analyzed by the students. The theme changes each year and is communicated during the first course. For example, in recent years, the topics covered have been microbiota, lipids and sterols, glucose and the endocrine system.
Inline resources	Moodle
Other infos	Prerequisite: knowledge in biochemistry and physiology.
Faculty or entity in charge	BIOL

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Aims
Master [120] in Chemistry and Bioindustries	BIRC2M	5		
Master [120] in Biochemistry and Molecular and Cell Biology	BBMC2M	5		
Master [120] in Agricultural Bioengineering	BIRA2M	5		
Master [60] in Biology	BIOL2M1	5		