UCLouvain

Ibral2102f

2019

Physiological and nutritional biochemistry: parts 1, 2 and 3

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.

|--|

Teacher(s)	Debier Cathy ;Larondelle Yvan (coordinator) ;				
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
Language :	English				
Place of the course	Louvain-la-Neuve				
Prerequisites	The set of competences, abilities and knowledge acquired during a bachelor degree in the area of Bioscience engineering.				
	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	- A detailed description of the processes of digestion and absorption				
	- A review of the main aspects of the metabolism of glucides, lipids and protides, with a special focus on the regulation and on the fate of the dietary constituents				
	- An integrated view of the main metabolic pathways via the analysis of some specific physiological situations (fasting, diabetes, exercise, pregnancy, lactation)				
	- A detailed analysis of the dietary requirements of humans (energy, nitrogen, amino acids, essential fatty acids, vitamins, water, minerals, dietary fibre), including the biochemical, metabolic and physiological justifications for				
	them - A detailed presentation of the concept of 'healthy food' in relation with some chronic diseases such as type-II diabetes, cardiovascular diseases, metabolic syndrome, osteoporosis, obesity, neurodegenerative diseases, intestinal diseases.				
Aims	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. Ongoing evaluation with written tests organized throughout the quarter (no exam during the session in January)				
Teaching methods	Due to the COVID-19 crisis, the information in this section is particularly likely to change. Coordinated package of lectures given by the teachers and seminars given by invited experts				
	Food industry visits Most of the activity requires the presence of the students.				
Content	1 – Digestion and absorption				
Content	2 – Post-absorptive nutrient utilization				
	Nutrient utilization during the absorptive phase				
	 Nutrient utilization during the postabsorptive phase Nutrient utilization during prolonged energy malnutrition or complete food deprivation 				
	3 – Physiological and pathophysiological situations				
	• Sport				
	Lactation Cancer				
	Obesity and metabolic syndrome				
	4 – Introduction to nutrition				
Inline resources	Moodle				
Bibliography	Notes de cours données par les professeurs (dias disponibles sur Moodle)				
Dibilography	Livres de référence conseillés mais non imposés				
	Slides used by the professors are available on Moodle				
	Several references books are recommended (but not mandatory)				

Universit'e catholique de Louvain - Physiological and nutritional biochemistry: parts 1, 2 and 3 - en-cours-2019-lbral2102 for the course of the course

Other infos	This course can be given in English
Faculty or entity in charge	AGRO

Programmes containing this learning unit (UE)							
Program title	Acronym	Credits	Prerequisite	Aims			
Bachelor in Veterinary Medicine	VETE1BA	2	LCHM1271V AND LCHM1371B	Q.			