

2.00 credits

18.0 h

Q1

Teacher(s)	Debier Cathy ;Dierge Emeline ;
Language :	English > French-friendly
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.
Main themes	<ul style="list-style-type: none"> - 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.
Learning outcomes	
Evaluation methods	Ongoing evaluation with written tests organized throughout the quarter (no exam during the session in January)
Teaching methods	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 2 – Post-absorptive nutrient utilization <ul style="list-style-type: none"> • 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 <ul style="list-style-type: none"> • Sport • Lactation • Cancer • Obesity and metabolic syndrome
Inline resources	Moodle
Bibliography	Notes de cours données par les professeurs (d'as disponibles sur Moodle) Livres de référence conseillés mais non imposés Slides used by the professors are available on Moodle Several references books are recommended (but not mandatory)
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	Learning outcomes
Additionnal module in Biology	APPBIOL	2		