

Due to the COVID-19 crisis, the information below is subject to change, in particular that concerning the teaching mode (presential, distance or in a comodal or hybrid format).

6 credits

50.0 h

Q1

Teacher(s)	Bommer Guido ;Collet Jean-François ;Rider Mark (coordinator) ;
Language :	French
Place of the course	Bruxelles Woluwe
Prerequisites	<i>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.</i>
Aims	<i>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".</i>
Evaluation methods	<p>Due to the COVID-19 crisis, the information in this section is particularly likely to change.</p> <p>Students will be evaluated on their ability to integrate biochemical concepts into a coherent synthesis. They must be able to describe, use and explain in precise biochemical terms all aspects addressed in the course.</p> <p>The written examination will consist in part of a multiple-choice questions and in part open-ended questions. For multiple choice questions with more than one correct option, the mark will only be attributed if all the correct responses have been selected.</p> <p>There are no negative points or ponderation according to the questions and course content. However, when a student has a mark between 9/20 et 10/20 after correction, the lecturers re-examine all the points to decide if the mark should be rounded up or down. It is thus a complete re-evaluation of the exam copy by the lecturers. If the answers are considered to be insufficient (for example failure of more than half of the questions), the final mark will be rounded down to 9/20.</p>
Teaching methods	<p>Due to the COVID-19 crisis, the information in this section is particularly likely to change.</p> <p>Formal lectures.</p> <p>The teaching will be conducted face-to-face or at distance exclusively or partially according to health restrictions.</p>
Content	<p>The main objective of this course is a comprehensive understanding at the molecular level of chemical processes in living organisms. Therefore, this course on Metabolic Biochemistry constitutes the stepping stone for the course on Human Biochemistry.</p> <p>Content:</p> <ul style="list-style-type: none"> • Reminder of the principles of thermodynamics • Structure-function relationships of haemoglobin • Introduction to enzymes • Principles of enzyme kinetics • Enzyme mechanisms • Principles of metabolic control • Glycolysis • Glycogen metabolism • The tricarboxylate cycle (Krebs cycle) • Electron transport and oxidative phosphorylation • Amino acid metabolism • Fatty acid metabolism • Other pathways of sugar metabolism
Inline resources	There is no formal syllabus ! PDF versions of slides presented in the course, which cover the subject in a comprehensive way, will be made available on MoodleUCL (https://moodleucl.uclouvain.be/). In addition, a tablet will be used to explain certain aspects of the course. The "Tablet" PDF versions of the PowerPoint files will also be made available to students via MoodleUCL.
Bibliography	Voet et Voet "Biochimie" 2e édition 2007, traduction de la 3e édition américaine par Guy Rousseau et Lionel Domenjoud Textbook of Biochemistry with Clinical Correlations, 7ème édition, Thomas M. Devlin
Faculty or entity in charge	MED

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Aims
Bachelor in Medecine	MD1BA	6	WMEDE1101 AND WMDS1111 AND WMDS1109	