

3.00 credits

30.0 h

Q1

Teacher(s)	Bommer Guido ;Collet Jean-François ;Lemaigre Frédéric (coordinator) ;Rider Mark ;
Language :	French > English-friendly
Place of the course	Bruxelles Woluwe
Learning outcomes	
Evaluation methods	<p>Students will be evaluated on their ability to synthesize and integrate several biochemistry data into a coherent synthesis. They must be able to describe, use and explain in precise biochemical terms the topics addressed and how a disease can result from molecular and biochemical dysfunctions.</p> <p>The written examination will consist in part of a multiple-choice questions and in part open-ended questions. The final score is the arithmetic sum of the points for the multiple-choice and open-ended questions.</p> <p>For multiple choice questions with more than one correct option, the mark will only be attributed if all the correct options have been selected. The number of correct options is mentioned on the questionnaire. No mark is attributed when no option is selected or when wrong options are selected.</p> <p>When a student has a mark between 9/20 and 10/20 after correction, the lecturers review together the exam copy to decide whether the mark should be rounded down or up according to the overall evaluation of the copy.</p>
Teaching methods	Lectures, on site
Content	<p>The course presents the basic principles of biochemistry as well as a series of human biochemistry themes considered as relevant to the training of students in Dentistry. The chapters on human biochemistry include a description of normal biochemical mechanisms, as well as illustrations of disorders that cause human pathologies. More specifically, the following topics will be addressed:</p> <ul style="list-style-type: none"> • Reminder of the principles of thermodynamics • Structure and function of hemoglobin • Introduction to enzymes • Principles of enzyme kinetics • Principles of metabolic control • The glycolytic pathway and glycogen metabolism • The tricarboxylate cycle (Krebs cycle) • Amino acid metabolism • Fatty acid metabolism • Bile biochemistry (bilirubin, bile salts) • Mechanisms of gene expression and diseases related to gene dysfunctions • Metabolism of cholesterol and plasma lipoproteins
Inline resources	<p>The slides presented in the course, which cover the subject in a comprehensive way, are available on MoodleUCL (https://moodleucl.uclouvain.be/).</p> <p>In addition, a tablet will be used to explain certain aspects of the course. The "Tablet" versions of the PowerPoint files will also be made available to students via MoodleUCL.</p>
Bibliography	<p>D.R. Ferrier: Biochemistry. Lippincott Illustrated Reviews. Wolters Kluwer. 2017</p> <p>Voet et Voet "Biochimie" 2e édition 2007, traduction de la 3e édition américaine par Guy Rousseau et Lionel Domenjoud</p> <p>Textbook of Biochemistry with Clinical Correlations, 7ème édition, Thomas M. Devlin</p>
Faculty or entity in charge	MDEN

Programmes containing this learning unit (UE)

Program title	Acronym	Credits	Prerequisite	Learning outcomes
Bachelor in Dentistry	DENT1BA	3		