


6.00 credits

50.0 h

Q1

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| 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> |
| Learning outcomes | |
| Evaluation methods | <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 weighting according to the questions and chapters of the subject. However, 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. If it is found that the answers are insufficient, the student has not mastered the subject and the mark will be rounded down to 9/20.</p> <p>As a result of the chapter exchanges between WMDS1231 and WMDS1215 that are being implemented from the academic year 2021-2022, students who failed the WMDS1215 exam in 2020-2021 will be examined on the WMDS1215 as taught in 2020-2021. Students who failed both the WMDS1215 and WMDS1231 examinations in 2020-2021 will be examined on the topics as taught in 2021-2022.</p> |
| Teaching methods | <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 • Purine and pyrimidine metabolism • Fatty acid, complex lipid and cholesterol metabolism |
| Inline resources | <p>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.</p> |
| Bibliography | <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 | MED |

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