UCL Université catholique de Louvain

WMD1120

2014-2015

Biologie générale et approche expérimentale de la biologie

10.0 credits	75.0 h + 25.0 h	1q

Teacher(s) :	Many Marie-Christine ; Kienlen-Campard Pascal ; Demoulin Jean Baptiste ;
Language :	Français
Place of the course	Bruxelles Woluwe
Prerequisites :	Prerequisite: French language knowledge, qualities of observation, of intellectual curiosity, of reasoning, of synthesis.
Main themes :	In a first part of the course, the cell is studied by closely associating morphology and function. The diversity and evolution of the living is first tackled by the study of meiosis, fertilization and Mendelian genetics. The study of animal evolution from the first animals to modern Man is based on arguments of anatomy and compared embryology illustrating the principle « ontogeny recapitulates phylogeny ».
Aims :	After this course, students should understand the basis of life on Earth and be able to answer the following key questions: what are living organisms, what do they have in common, and what differentiates them. These lectures constitute a framework that will be developed in more detailed courses in the following years, with a special focus on cellular and molecular biology, Mendelian genetics and evolution from bacteria to modern Man. Those aims try to develop qualities of intellectual curiosity, observation, reasoning, synthesis, scientific rigour, oral, written and iconographic expression, and finally of self-learning, stimulating the consultation of books, scientific reviews, and informatics materials (CD-Rom, websites). *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 :	Assessment: Written exam.
Teaching methods :	The course includes lectures during which the diagrams will be drawn together with the students. During practical works, the students will see on screen everything they were taught in theoretical courses: slides and films' showings and examination of histological cuts. Additional support (slideshows, exercises, forum) is available on a iCampus website.
Content :	Contents: Introduction: principles of organization of the biosphere Chapter 1: The chemistry of life Chapter 2: The cell Chapter 3: Reproduction and genetics Chapter 4: Evolution Chapter 5: Biological diversity through evolution Chapter 6: Scientific ecology
Bibliography :	Materials: The course materials consist in written notes with which the students will have to add the diagrams drawn during the class. Slideshows are available online. Different references are recommended to the students for further information.
Other infos :	Supervision: The supervision of practical courses is organized by work managers and assistants. Tests are carried out and corrected each week. DENT11BA 1st year of Bachelor in dentistry (9 credits) Compulsory FARM11BA 1st year of Bachelor in pharmaceutical sciences (9 credits) Compulsory SBIM11BA 1st year of Bachelor in Biomedical sciences (10 credits) Compulsory
Cycle and year of study :	> Bachelor in Biomedicine
Faculty or entity in charge:	MED