




6 credits

52.5 h + 27.0 h

Q2

Teacher(s)	Lejeune André ;Rees Jean-François ;
Language :	French
Place of the course	Louvain-la-Neuve
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>
Content	CELL BIOLOGY AND INTRODUCTION TO PROKARYOTES, PROTISTS AND FUNGI (37.5h of lectures+ 18h of laboratory; 5 credits) After an introduction on biology and the living beings, the "Cell biology" part begins with a recall of the main chemical components of the cells and an overview of the principal characteristics of a few representative cell types. The integrated study of cell structures and functions takes place in three "itineraries" :1) the cell environment, the membranes, the traffic across membranes, the lysosomes and the digestion in animal cells, the endoplasmic reticulum, the Golgi apparatus and cell secretion, the plant vacuoles; 2) the cytosol and fermentation, the mitochondrion and respiration, the plastids and photosynthesis, the peroxysomes, the cytoskeleton, the ribosomes and protein synthesis; 3) the interphase nucleus and transcription, the cell cycle (cycle, DNA replication, mitosis and cell division), reproduction (Mendel's laws, meiosis, fertilisation, life cycles). The "Introduction on prokaryotes, protists and fungi" section begins with an overview on the birth of life on Earth and the classification systems. It then envisions the characteristics and diversity of living beings belonging to the prokaryotes, protists and fungi.
Other infos	Pre-requisites : thorough knowledge of mother language, rigor, ability to observe, analyse, synthesise, curiosity, imagination, motivation. Evaluation : theoretical examination, continuous evaluation for certain laboratory works. Written and other supports : notes written by the teachers, books, overhead transparencies, internet sites, discussion forum. The course utilises the i-Campus platform. A part of the topics is studied by a projects approach. Staff support : teachers and teaching assistants for the theoretical classes, the laboratory work, the instructorships and the group meetings in project learning.
Faculty or entity in charge	SC

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Aims
Bachelor in Chemistry	CHIM1BA	6		
Bachelor in Bioengineering	BIR1BA	6		
Bachelor in Biology	BIOL1BA	6		
Bachelor in Geography : General	GEOG1BA	6		