UCLouvain

wmd1120

2022

General biology and an experimental approach to biology

| 10.00 credits | 75.0 h + 25.0 h | Q1 |
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| Teacher(s) | De Smet Charles ;Demoulin Jean Baptiste (coordinator) ;Kienlen-Campard Pascal ; | | | | |
|-----------------------------|--|--|--|--|--|
| Language : | French | | | | |
| 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 ». | | | | |
| Learning outcomes | At the end of this learning unit, the student is able to : | | | | |
| | 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). | | | | |
| Evaluation methods | Assessment: Written exam. | | | | |
| Teaching methods | The course includes lectures, practical works and tutorials. | | | | |
| Content | Contents: (this course is given in French) Chapter 1: The chemistry of life Chapter 2: The cell Chapter 3: Cell physiology Chapter 4: Cell communication and signaling Chapter 5: Reproduction and genetics Chapter 6: Cell differentiation and embryology Chapter 7: Evolution Chapter 8: Experimental biology (for biomedical students only). | | | | |
| Inline resources | See Moodle | | | | |
| Other infos | | | | | |
| Faculty or entity in charge | FASB | | | | |

| Programmes containing this learning unit (UE) | | | | | | |
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| Program title | Acronym | Credits | Prerequisite | Learning outcomes | | |
| Bachelor in Biomedicine | SBIM1BA | 10 | | • | | |