

3 credits

25.0 h

Q1

Teacher(s)	Michiels Thomas ;
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>
Main themes	General structure, replication cycles, and classification of viruses; antiviral agents and vaccination; Reverse genetics and use of viruses as vectors. Selected viruses will be taken as examples to illustrate the diversity of host-virus interactions and the outcome thereof (latency, cellular transformation, oncogenesis, antigenic variation and escape of immune responses, AIDS...).
Aims	<p>1 The lectures present basic concepts on structure and function of animal viruses. It outlines the relationship between the basic replication cycle of the virus and the outcome of the infection for the host. It aims at giving the student the ability to use basic knowledge of viral life cycles as a tool to understand the techniques that are used to detect viruses, develop antiviral compounds.</p> <p>-----</p> <p><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></p>
Evaluation methods	<b>Due to the COVID-19 crisis, the information in this section is particularly likely to change.</b> written examination combining (short answer) open and multiple choice questions.
Teaching methods	<b>Due to the COVID-19 crisis, the information in this section is particularly likely to change.</b> classes and discussions
Content	Historics of viruses discovery, characterization and classification. Structure and replication cycle of animal viruses (DNA viruses, RNA viruses and retroviruses). Host-virus interaction (cellular transformation, latency, antigenic variation, cancer, oncogenes, AIDS). Vaccination and antiviral agents. Reverse genetics and use of viruses. Non-conventional agents.
Inline resources	web site of "initiation to Virology" (in french): <a href="http://www.virologie-uclouvain.be">www.virologie-uclouvain.be</a> files with the illustration slides posted on Moodle
Other infos	Prerequisite: basic biochemistry, molecular and cellular biology: nature and function of nucleic acids and proteins; gene expression, protein synthesis, modification and targeting in eucaryotic cells; organization and function of the eucaryotic cell. Assessment: By written (or oral) exam. The students will be examined on their knowledge of the subject, and on their capacity to use this knowledge to solve problems
Faculty or entity in charge	SBIM

<b>Programmes containing this learning unit (UE)</b>				
Program title	Acronym	Credits	Prerequisite	Aims
Bachelor in Biomedicine	<a href="#">SBIM1BA</a>	3	WMD1120 AND WMD1106 AND <a href="#">WSBIM1227</a> AND <a href="#">WFARM1282</a>	