

3.0 credits	25.0 h + 25.0 h	2q
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Teacher(s) :	Hance Thierry ; Wesselingh Renate ; Wesselingh Renate (compensates Hance Thierry) ;
Language :	Français
Place of the course	Louvain-la-Neuve
Main themes :	The main themes are the principles of speciation and evolution that explain the diversity of the living and fossil world, and the different methods that can be used to classify it and construct phylogenies. This is illustrated by the phylogeny of animals and the diversity and phylogeny of plants.
Aims :	<p>The students will learn the principles and methods used to classify the living world, their advantages and limitations. They should be capable to explain the species concept and its limits, how to identify and name it, and to place organisms in the general tree of life. They should understand how phylogenies are constructed.</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>
Content :	<p>Classification : aims, necessity and applications, the main schools and the actual debate.</p> <p>Species : the species concept and its limites (from race to species complex), principles of nomenclature and description, speciation and evolution.</p> <p>Phylogeny : principles of reconstruction, data analysis, using molecular data, critical analysis of representations.</p> <p>Animal phylogeny : the new classification based on molecular data, comparison with the traditional classification.</p> <p>Plant diversity and phylogeny : history, plant evolution, the actual molecular classification of angiosperms (APG II).</p> <p>Practical work : Application of methods for constructing phylogenetic trees to molecular datasets, visit to the National Botanical Garden, discovering orchid diversity in Belgium.</p>
Other infos :	<p>Evaluation : Written and oral exam (90%), report on practical work (10%)</p> <p>Support : PowerPoint presentations, syllabus.</p>
Cycle and year of study :	<p><a href="#">&gt; Bachelor in Biology</a></p> <p><a href="#">&gt; Master [120] in History of Art and Archaeology : General</a></p>
Faculty or entity in charge:	BIOL