


2.00 credits

20.0 h

Q2

Teacher(s)	Van Dyck Hans ;
Language :	English
Place of the course	Louvain-la-Neuve
Main themes	<p>The famous quote of Theodosius Dobzhansky « Nothing makes sense in biology, except in the light of evolution » (referring to his essay published in 1973) is well known among students in biology.</p> <p>However, the significance of evolutionary thinking is by no means limited to pure biology. Evolution played no significant role in psychology, sociology, agriculture, natural resource management and medicine for the better part of a century or so. But the intellectual times are changing. There are now new handbooks on evolutionary psychology, evolutionary medicine, Darwinian agriculture, etc.</p> <p>"Evolutionary Applications" is also the title of a young scientific journal. Hence, students who are well trained in evolutionary thinking should be well armed for making significant contributions to several applied fields that are highly relevant for our society and current and future environment.</p> <p>In this course we will train evolutionary thinking within the context of several applications covering fields including agriculture, aquaculture, biomedicine, climate change, conservation biology, disease biology, forestry, invasion biology, fisheries, wildlife management, psychology and sociology.</p> <p>There is no syllabus or textbook, but we will use a number of papers and book chapters as study material (will be available on Moodle).</p> <p>I will lecture about different concepts and their application, and we will frequently discuss about case studies in the different fields of the natural and human sciences.</p>
Learning outcomes	<p>At the end of this learning unit, the student is able to :</p> <ol style="list-style-type: none"> 1. Demonstrate mastery of the long and short term processes of evolution of living things. 2. Confront the application of knowledge gained in evolutionary biology in a range of areas within and outside of biology in the strict sense.
Evaluation methods	<p>The student's presentation on an imposed topic will be evaluated.</p> <p>The score or mark of this presentation contributes for 60% to the final mark. There is also a written exam covering all presentations and also the introductory lecture. The exam contributes for 40% of the final mark of this teaching unit.</p>
Teaching methods	<p>After some introductory lectures, the students will present to the other students and discuss a number of cases in the field of evolutionary applications based on published scientific papers. Each student will get an imposed topic.</p>
Content	<p>This teaching unit focuses on the analysis, understanding and application of evolutionary thinking (so based on evolutionary biology) to other applied fields (e.g. agriculture, human health, psychology, fisheries, etc.).</p>
Inline resources	Moodle web site
Faculty or entity in charge	SC

Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Master [120] in Biology of Organisms and Ecology	BOE2M	2		
Master [60] in Biology	BIOL2M1	2		