



Due to the COVID-19 crisis, the information below is subject to change, in particular that concerning the teaching mode (presential, distance or in a comodal or hybrid format).

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|-----------|--------|----|
| 2 credits | 20.0 h | Q2 |
|-----------|--------|----|

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|-----------------------------|--|
| Teacher(s)                  | Arun Alok (compensates Van Dyck Hans) ;Van Dyck Hans ;Wesselingh Renate (compensates 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. 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. '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. 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). 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> |
| Aims                        | <ol style="list-style-type: none"> <li>1. Démontrer une maîtrise des processus de l'évolution des êtres vivants à long et court terme.</li> <li>2. Se confronter à l'application des connaissances acquises en biologie évolutive dans une série de domaines en biologie et en dehors de la biologie dans le sens strict.</li> </ol> <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          | <p><b>Due to the COVID-19 crisis, the information in this section is particularly likely to change.</b></p> <p>The student's presentation on an imposed topic will be evaluated. 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><b>Due to the COVID-19 crisis, the information in this section is particularly likely to change.</b></p> <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                     | 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.).   |
| Inline resources            | Moodle web site  |
| Faculty or entity in charge | SC   |

| <b>Programmes containing this learning unit (UE)</b> |         |         |              |   |
|--|---------|---------|--------------|---|
| Program title  | Acronym | Credits | Prerequisite | Aims  |
| Master [120] in Biology of Organisms and Ecology     | BOE2M   | 2       |              |  |
| Master [60] in Biology                               | BIOL2M1 | 2       |              |  |