UCL Université catholique de Louvain

LBIR1335

2013-2014

Field excursions in pedology, agricultural ecology and forestry

3.0 credits	30.0 h	1+2q

Teacher(s) :	Lambert Richard ; Vincke Caroline ; Delmelle Pierre (compensates Delvaux Bruno) ; Delmelle Pierre (coordinator) ; Delvaux Bruno ;
Language :	Français
Place of the course	Louvain-la-Neuve
Prerequisites :	LBIR1130 - Introduction aux sciences de la terre LBIR1230 - Introduction à l'ingénierie de la biosphère
Main themes :	The module is entirely delivered through field trips. Forested and agricultural sites representative of typical soil use are visited. At each site, the student has the opportunity to mobilize his/her knowledge in core science (chemistry,physics, botany and geology) and applied science subjects, including soil science and ecology, and to apply it to the study of forest, grassland and agricultural ecosystems and in relation to wood and food production and environmental issues.
Aims :	a. Contribution de l'activité au référentiel AA (AA du programme) 1.5, 1.6 5.1 6.6, 6.7, 6.8 7.1 8.1 b. Formulation spécifique pour cette activité des AA du programme At the end of this activity, students will be able: · to describe in detail an agricultural or a forest soil profile by integrating his/her knowledge and observations collected during the field trips; · to provide a detailed description from an autecology viewpoint, in particular in forest ecosystems, by mobilising the knowledge acquired during the field trips; · to identify the most common wild plants and the main forest species and crops based on practice acquired through the field trips; · to interpret in general terms the ecology of an ecosystem by using theoretical concepts acquired through other modules and illustrated in field visits; · to formulate and justify different soil use allocations based on an environmental diagnostic; · to discuss and challenge common agricultural practices in our regions by applying knowledge gained during teaching and from professionals met during the field trips. *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".*
Evaluation methods :	Closed written exam and test of plant identification
Teaching methods :	The teaching is delivered through four field trips between October and May. Students perform a thorough analysis of i) soils and ii) vegetation under the teachers' guidance. They are requested to work in groups and to conduct on their own a series of observations and diagnostics of flora, forest species, soil, topography and other environmental parameters. They receive training to use the field tools commonly deployed by agronomists and forestry scientists. In the field, students are then requested to provide a station diagnostic and to formulate realistic propositions of potential soil uses. These results are used by the teachers to introduce a debate and to challenge the different opinions.
Content :	Four field trips between October and May are planned. The field trips relate to the following topics: : · Soil science and forest ecology · Soil science and agriculture ecology · Integrated study of a soil hydro-toposequence
Bibliography :	The module does not use a specific teaching resource.
Other infos :	The module will be useful for students who will follow LBIR1334 - Introduction aux sciences forestières. It also provides a general introduction to more specialised modules in Master 1 et 2, with agronomy and environment as main subjects.
Cycle and year of study :	> Bachelor in Bioengineering

Faculty or entity in charge:	AGRO