LBIRE2211

2012-2013

Projet intégré en technologies et gestion de l'information

6.0 credits	60.0 h	1q

Teacher(s) :	Bogaert Patrick (coordinator) ; Hanert Emmanuel ; Defourny Pierre ;
Language :	Français
Place of the course	Louvain-la-Neuve
Main themes :	The integrated project in information technology and management requires students to apply in an integrated way the knowledge and skills acquired during their training as bio-engineers whatever their specific orientation, in order to analyze, understand and formalize a problem involving data and information in the field of biological, chemical or agronomical engineering. These aspects will encompass the issues of data and information acquisition and processing within the limits of their expected expertises, along with the final presentation and spreading of the project results targeted towards non specialists (public institutions, etc.). The project will reflect the complexity of a similar problem that the students might encounter in the course of their future professional careers within the time constraints of the course. A written and oral report is expected, that must be understandable and useable by an engineer without specific prior knowledge on the topic.
Aims :	- Capacity to integrate basic scientific disciplines together with technical, economic and legal constraints in order to solve an engineering issue related to the information technologies, processing and management. - Capacity to communicate about the approach and the solution obtained with the rigour and technological expertise expected from bio-engineers - Ability to work and collaborate within a team, requiring good sense of initiative and organisational abilities in order to take in charge and complete the project - Capacity to justify and defend the chosen approach and corresponding solutions - Initiation to the legal and technical aspects of problem solving related to information technology, processing and management at all steps. *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".*
Content :	An actual and recent environmental issue, that will differ from year to year, is proposed to the students by the teaching team or some external partners. The students will be grouped in teams of 2-4 persons will act as if they were groups of experts or consultancy agencies. They will structure their approach of the problem, identify the various caveats to be solved, planify the various steps of the work and mobilize the necessary resources needed for the accomplishment of the work. Depending on the problem at hand, the project will include as mandatory main parts at least two of the following thematics, while the others will be include as secondary or accessory discussions: data collection as provided by competent organizations, data validation/correction, databases management, statistical analysis and modelling, risk analysis, reporting and presentation of the results targeted toward a non specialist audience (interface for users, synthesis indicators, etc.). The project will involve individual work, team work and regular meetings at key steps with the teaching team and external partners who will guide the students. The project report written by the group is due by the end of the last week of the semester and will be the defended orally during the session.
Other infos :	Precursory courses : 1st cycle (bachelor) in bio-engineering; the project is open to all masters in bio-engineering (A,C and E orientations) Evaluation : Written report and oral presentation of the project
Cycle and year of study :	> Master [120] in Environmental Bioengineering
Faculty or entity in charge:	AGRO