LREAU2302
2010-2011

Integrated modeling of the water cycle : a tool for integrated water management

4.0 credits	30.0 h + 15.0 h

Teacher(s) :	Vanclooster Marnik ; SOMEBODY ;
Language :	Français
Place of the course	Louvain-la-Neuve
Main themes :	The main activity of the course is the presentation of a set of modelling tools which can be used for water management, through a set of case studies. The students will be initiated to different approaches for modelling the hydrological cycle, considering the technical and socio-economic constraints in hydrosystems. The following themes will be developed : water management decision support systems, water management planning tools, risk analysis tools (hydrological risks, flooding, climate change, water pollution), integrated hydrological modelliong : concepts, methodologies, design of monitoring networks, design of alerting systems, water management (hydraulic management, protection of pumping wells, land management).
Aims :	At the end of this course in which different concepts and case studies of integrated water management will be illustrated, the students will have an overview on how integrated modelling of the hydrological cycle can be used to support integrated water management. *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 :	For meeting the course objectives, technical seminars will be given by professional experts and by the students on the basis of literature case studies : 2 ECTS : Seminars given by experts from the public and private sector, considering specific case studies ; 2 ECTS : Seminars given by the students on the basis of a literature study.
Other infos :	Evaluation Evaluation report giving a synthesis of the seminars given by the professional experts and by the students.
Cycle and year of study :	> Advanced Master in Water Resources
Faculty or entity in charge:	AGRO