UCL Université catholique de Louvain

# LLSMS2051

*2015-2016*

# Quantitative Methods in Environmental Management (in French)

| 5.0 credits | 30.0 h | 2q |
|---|---|---|

| | |
|---|---|
| Teacher(s) : | Bréchet Thierry ; |
| Language : | Français |
| Place of the course | Louvain-la-Neuve |
| Prerequisites : | A course in environmental econmics |
| Main themes : | This course presents several quantitative techniques used in the analysis and management of environmental problems, both at the firm s level (microeconomic approach) and at the regional or country level (macroeconomic approach). The focus is on mathematical modeling tools with a strong emphasis on economic analysis. The course provides the theoretical background as well as empirical case studies. |
| Aims : | Having regard to the LO of the programme X, this activity contributes to the development and acquisition of the following LO:<br>-- 1. Corporate citizenship<br>1.1. 'Demonstrate independent reasoning, look critically '<br>2. Knowledge and reasoning<br>2.1. Master the core knowledge of each area of management.<br>2.2. Master highly specific knowledge '<br>2.3. Articulate the acquired knowledge from different areas<br>2.4. Activate and apply the acquired knowledge '<br>3. A scientific and systematif approach<br>3.1. Conduct a clear, structured, analytical reasoning '<br>3.3.Consider problems using a systemic and holistic approach '<br>3.5.Produce, through analysis and diagnosis, implementable solutions'<br>5. Work effectively in an international and multicultural environment<br>5.3.Understand and establish their own role and scope for action '<br>9. Personal and professional development<br>9.4. Quick study, lifelong learner '<br>*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 : | The following tools are considered : the role of modeling in decision-making, typology of the different tools in support of decision-making, linear programming models, computable general equilibrium models, partial equilibrium models, multi-criteria analysis, life-cycle analysis, material flow analysis. The theoretical background is given to the students ; they present a case study published in the literature.<br>Content<br>The case for innovation<br>Innovation concepts<br>Case studies<br>Innovation financing<br>Innovation management processes |
| Bibliography : | : No TEXTBOOK. SLIDES compulsory and available on line . No book protected by copyright. and available on line Supports available on line are on ICAMPUS. |
| Other infos : | Prerequisites (ideally in terms of competiencies)<br>Evaluation : Class participation and oral examination, in French or English<br><br>References : Provided during the class |
| Faculty or entity in charge: | CLSM |

| Programmes / formations proposant cette unité d'enseignement (UE) | | | | |
|---|---|---|---|---|
| Intitulé du programme | Sigle | Credits | Prerequis | Acquis d'apprentissage |
| Master [120] in Business Engineering | INGM2M | 5 | - | |
| Master [120] in Business engineering | INGE2M | 5 | - | |