UCLouvain

lsst1001

2023

IngénieuxSud

5.00 credits	15.0 h + 45.0 h	Q1 and Q2

This learning unit is not open to incoming exchange students!

Teacher(s)	Merle Stéphanie ;Raskin Jean-Pierre (coordinator) ;
Language :	French
Place of the course	Louvain-la-Neuve
Main themes	Projects which provide solutions to a real problematics issued from the field (technical, economical, socio-cultural), cooperation for development, systemic approach, responsibility, commitment, ethic, solidarity, team work, innovations, appropriable technologies, scientific citizenship.
Learning outcomes	**At the end of this learning unit, the student is able to :** **Contribution to the main teaching programs of the sector SST** **Disciplinary learning outcomes:** After the training the student will be able to: Develop proposals, in the form of projects, appropriated to a development issue which falls under the identification and / or the design of a technical device, economic, socio-cultural: 1. Identify and define questions and problematics 1.1 Draw specifications 1.2 Analyze a context 1.3 Analyze a problematic 1.4 To introduce the concept of systemic 1.5 Find out the levers and constraints of a project 1.6 Understand the life stages of a group 2. Establish innovative proposals 2.1 Discovering and implementing technologies that foster innovation and creativity 2.2 Discovering suitable and sustainable technologies 2.3 Introduce the principles of sustainable development and its application in engineering projects 2.4 Preparing for the mission on the field 2.5 Soaking the iterative process 3. Assess the feasibility and impact of proposals drawn 1 3.1 Understanding the technological balance as coming in support of human evolution 3.2 Identify suitable tools to measure the impact of a project 3.3 To contribute to the visibility of IngénieuxSud projects **Transversal learning outcomes:** 1. Develop and adopt a reflexive attitude on questions and development issues and find appropriate solutions 1.1 Carrying a critical look at their own skills, knowledge and his own limits 1.1 Defining the various project issues (cultural, social, economic, technical) through a systems approach 1.2 Continuously analyze the evolution of his thinking throughout the project 2. Team work, collaborate effectively with national and international partners 2.1 Identify the contribution and complementary interests of the partners in the project issue 2.2 Plan your teamwork: building a timetable, an apprenticeship program,' 2.3 Self-evaluate its individual involvement in the group and the cooperation within the project and its group 3. Communicate effectively orally and in writing with a wide spectrum of national and international audience (scientific experts, peers, teachers, trainers,...) 3.1 Use appropriate means to dialogue with different audiences and partners 3.2 Provide feedback and suggest future prospects 3.3 Write an intercultural Portfolio, consistent, well structured, scientifically rigorous and critical thinking Adapt your communication according to his interlocutors (peers, colleagues, teachers, trainers, scientists,...)

Evaluation methods	- Portfolio (continuous assessment) group with individual parts - Oral group presentations in front of an interdisciplinary panel Submission of a final report and oral defense of the project before moving and implementing the technical solution in the concerned Southern country.
Teaching methods	Hybrid formation (on line and face to face) - Course: multidisciplinary, multi-actors, multi-cultural - Active learning in group - Learning by the project - Coaching by scientific and academic bodies, field professionals (North and South) • Interviews, search and analysis of articles,'
Content	- For sustainable development Science and technology - International solidarity - The adequacy means-project objectives - Interculturalism: exchange of points of view, regard, fresh perspective on the same scientific problem - The development of the project as part of a development cooperation program - The application of a systemic approach in a scientific project - The development of a concrete project: the definition of the problem specifications to the practical application - Factors that influence the project (social, country, population, external constraints, planning,...) - The levers of change • Teamwork and communication (with Southern partners, with people in the group, with technical and development experts, the local population and authorities,')
Bibliography	Ouvrage de référence : - M. Ashby, (2016), « Materials and sustainable development », Elsevier Science and technology, UK. Revue Spore : Le magazine du développement agricole et rural des pays ACP - http://spore.cta.int
Faculty or entity in charge	EPL

Programmes containing this learning unit (UE)

Program title	Acronym	Credits	Prerequisite	Learning outcomes
Master [120] in Multilingual Communication	MULT2M	5		
Bachelor in Chemistry	CHIM1BA	5		
Bachelor in Veterinary Medicine	VETE1BA	5		
Master [120] in Management	GESM2M	5		
Master [120] in Data Science : Statistic	DATS2M	5		
Bachelor in Engineering	FSA1BA	5		
Master [120] in Law	DROI2M	5		
Master [120] in Geography : Climatology	CLIM2M	5		
Master [120] in Biology of Organisms and Ecology	BOE2M	5		
Master [60] in Physics	PHYS2M1	5		
Master [60] in Geography : General	GEOG2M1	5		
Master [120] in Biochemistry and Molecular and Cell Biology	BBMC2M	5		
Bachelor in Biology	BIOL1BA	5		
Master [120] in Statistics: Biostatistics	BSTA2M	5		
Master [60] in Biology	BIOL2M1	5		
Master [120] in Linguistics	LING2M	5		
Minor : Issues of Transition and Sustainable Development	MINDD	5		
Master [120] in Mathematics	MATH2M	5		
Master [120] in Actuarial Science	ACTU2M	5		
Master [60] in Mathematics	MATH2M1	5		

Master [120] in Population and Development Studies	SPED2M	5		
Master [120] in Chemistry	CHIM2M	5		
Master [120] in Statistics: General	STAT2M	5		
Bachelor in Mathematics	MATH1BA	5		
Master [120] in Public Administration	ADPU2M	5		
Master [120] : Business Engineering	INGE2M	5		
Bachelor in Computer Science	SINF1BA	5		
Bachelor in Physics	PHYS1BA	5		
Master [120] in Management	GEST2M	5		
Master [120] in Physics	PHYS2M	5		
Master [60] in Chemistry	CHIM2M1	5		
Master [120] : Business Engineering	INGM2M	5		
Bachelor in Geography : General	GEOG1BA	5		
Master [120] in Geography : General	GEOG2M	5		
Master [120] in Motor Skills: Physical Education	EDPH2M	5		