




5.00 credits	30.0 h + 15.0 h	Q1
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Teacher(s)	Macq Benoît ;Marichal Xavier (compensates Raucent Benoît) ;Nagy Viktória (compensates Raucent Benoît) ;Raucent Benoît ;
Language :	English
Place of the course	Louvain-la-Neuve
Prerequisites	Students are invited to apply to professors in charge of the course by sending a CV and a motivation letter by SEPTEMBER 21 at latest, by email to the professors in charge of the lecture. They will be able to register for this course only after having received the authorization.
Main themes	Design thinking, innovation, creativity, transition, user experience and adoption
Learning outcomes	<p><b>At the end of this learning unit, the student is able to :</b></p> <ul style="list-style-type: none"> <li>• Identify / evaluate / improve innovative / relevant / realistic idea by demonstrating leadership in an uncertain environment in the domain of sustainability or transition;</li> <li>• Adopt a holistic approach to tackle socio-technical issues and innovate under constraints;</li> <li>• Develop and / or improve a product / service / technology following a rigorous innovation method which accounts for all the externalities;</li> <li>• Identify stakeholders / clients and assess their expectations;</li> <li>• Identify new Users Experience (UX) expectations from the innovation and assess them</li> <li>• Identify, mobilize and manage resources and networks needed to develop an innovation project (team, partners, consultants, resources, ...);</li> <li>• Identify ways to have potential users which could acknowledge the benefit(s) of a project;</li> <li>• To communicate, evolve, work in a team and develop a project in a multicultural and multidisciplinary context;</li> <li>• Be creative and bold, dare to violate the customs and dominant practices, demonstrate initiative and risk-taking.</li> </ul> <p>This course contributes to learning outcomes 2, 3, 4, 5 of the targeted reference system of competences for EPL students.</p>
Evaluation methods	<p>Students' learning outcomes will be evaluated on the basis of the following elements:</p> <ul style="list-style-type: none"> <li>• At the end of each stage of the project, the students will write an individual summary of the learnings. The student must reflect on their choices and actions. These summaries will account for 50% of the final mark.</li> <li>• The final presentation of the project by the group will account for 50% of the final mark.</li> </ul>
Teaching methods	<p>The course is organised in two stages.</p> <ul style="list-style-type: none"> <li>• two full days of kick-off: Introduction to design thinking through seminars and small-scale experimentations with a micro-challenge.</li> <li>• project spanning over 10 weeks with weekly workshops from 6:15 p.m. to 9:15 p.m. every Monday. Throughout their project students will be supervised by professionals in the domain of innovation.</li> </ul> <p>The project ends with a public presentation.</p>
Content	<p>This teaching is to make students aware of approaches such as Design Thinking, Lean startup and Effectuation. It also seeks the appropriation by the students of innovative design method and to learn the art of pitching. Those design methodologies will help the students to embrace the complexity of the capturing major societal issues including a user experience prospective, to step back and think about new ways of producing objects and services by integrating criteria of success which go beyond the technical efficiency and economic profitability. This course will contribute to the development of the critical spirit of the students.</p> <p>Concretely, it includes the following:</p> <ul style="list-style-type: none"> <li>• Clarification of a request or an issue in the domain of sustainable development and/or the transition</li> <li>• Finding solutions using methods promoting creativity and relevant user experience</li> <li>• Prototyping solutions</li> <li>• Assessment of the scalability, learnability and usability of the chosen solution</li> <li>• Communication in the form of pitches</li> <li>• Project management in a multicultural context</li> </ul>

Faculty or entity in charge	EPL
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Programmes containing this learning unit (UE)				
Program title	Acronym	Credits	Prerequisite	Learning outcomes
Master [120] in Multilingual Communication	MULT2M	5		
Master [120] in Management	GESM2M	5		
Master [120] in Law	DROI2M	5		
Master [120] in Chemical and Materials Engineering	KIMA2M	5		
Master [120] in Civil Engineering	GCE2M	5		
Master [120] in Biomedical Engineering	GBIO2M	5		
Master [120] in Linguistics	LING2M	5		
Master [120] in Mechanical Engineering	MECA2M	5		
Master [120] in Public Health	ESP2M	5		
Master [120] in Electrical Engineering	ELEC2M	5		
Master [120] in Physical Engineering	FYAP2M	5		
Master [120] in Computer Science and Engineering	INFO2M	5		
Master [120] in Public Administration	ADPU2M	5		
Master [120] in Computer Science	SINF2M	5		
Master [120] : Business Engineering	INGE2M	5		
Master [120] in Management	GEST2M	5		
Master [120] in Electro-mechanical Engineering	ELME2M	5		
Master [120] in Mathematical Engineering	MAP2M	5		
Master [120] in Data Science Engineering	DATE2M	5		

Master [120] : Business Engineering	<a href="#">INGM2M</a>	5		
Master [120] in Motor Skills: Physical Education	<a href="#">EDPH2M</a>	5		
Master [120] in Data Science: Information Technology	<a href="#">DATI2M</a>	5		
Master [120] in Energy Engineering	<a href="#">NRGY2M</a>	5		