UCLouvain

lepl1511

2024

Project 4 (in business projects creation)

5.00 credits	30.0 h + 22.5 h	Q2

Teacher(s)	Hendrickx Julien (coordinator) ;
Language :	French
Place of the course	Louvain-la-Neuve
Main themes	• Difference between startups and large companies • Customer segmentation. • Value proposition. • pivot. • Distribution channels. • Customer relations • Income models • Cost structures • Financial plans and investor expectations • Intellectual property • Strategic partners • Prototyping (software, hardware, electronics, website…) • Startup project validation in a co-creation approach. • Pitching a startup project
Learning outcomes	**At the end of this learning unit, the student is able to :** *Contribution of the course to the program framework* With regard to the AA reference of the program "Bachelor in Engineering Sciences, orientation civil engineer", this course contributes to the development, acquisition and evaluation of the following learning outcomes: • AA 1.1, 1.2 • AA 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8 • AA 3.1, 3.2, • AA 4.1, 4.3, 4.4, 4.5 • AA 5.1, 5.2 *Course specific learning outcomes* The skills targeted by “projects 4” consist on the one hand of transversal skills, common to all projects 4, and on the other hand of disciplinary technical skills, specific to each specialization. *Transversal skills :* The 4 projects aim to acquire transversal skills close to the practice of the engineering profession in a varied disciplinary context: • analyze an existing system and improve it; • critically analyze experimental data; • distinguish between reality and the models used to describe or modify it; • understand the notion of uncertainty in the management of the project, in its realization, and in the results obtained. The project will also give pride of place to the right to make mistakes, a characteristic component of a young engineer's early career. *Disciplinary technical skills:* Developing all aspects of a business project according to a lean or agile methodology, including: • Developing a business model based on an identified need in a target audience and a technical solution to meet that need. • Conducting a quantitative and qualitative market study through documentary research, interviews, and online surveys. • Confronting the project with the reactions of various stakeholders: potential customers, commercial or industrial partners. • Iteratively improving the project based on feedback and information obtained. • Establishing a credible financial plan to enable the development of the company and determine the financing needs. • Establishing and testing a prototype or developing a convincing technical plan to establish the feasibility of the project. • Preparing and practicing a start-up project pitch for potential customers or investors.

	The contribution of this teaching unit to the development and mastery of the skills and achievements of the program(s) can be accessed at the end of this sheet, in the section "Programmes/training offering this teaching unit (TU)".
Evaluation methods	Students will be evaluated both as a group orally and in writing, and individually in writing (exam taken at the same time for all bachelor students), based on the specific objectives announced previously. A detailed evaluation grid will be provided at the beginning of the semester. The details of the evaluation methods will be communicated at the beginning of the semester and published on the course's Moodle website The final grade will be composed as follows: • The project grade, including the realization, written presentations, oral presentations/interactions, organization of work, reflective posture on the subject, and mastery of the concepts related to the project. This grade may be individualized based on the student's involvement within the group during the semester (mandatory attendance at activities, active participation in intermediate work and assessed work). This part of the work cannot be redone in the second session. • The grade of an individual written test (outside the exam session). The weight of the individual evaluation in the final grade is 25% in case of success, but increases in case of failure. Specifically, it will be 100% for a grade lower or equal to 6, and will evolve linearly with the grade between 6 and 10 according to the following formula: weight = 1 - 0.75 * (grade - 6)/4. The second session will consist of an individual exam, possibly requiring the preparation of individual work beforehand.
Teaching methods	Group work on the development of an actual business project specific to each group. Regular interactions with an experienced coach, including through presentations. Learning of the 'lean startup' methodology for creating a business through group discussions of videocasts. Confrontation of ideas and assumptions with the real world through discussions with potential customers and commercial or industrial partners. Development and testing of a prototype with stakeholders.
Content	• Difference between startups and large companies • Customer segmentation. • Value proposition. • pivot. • Distribution channels. • Customer relations • Income models • Cost structures • Financial plans and investor expectations • Intellectual property • Strategic partners • Prototyping (software, hardware, electronics, website…) • Startup project validation in a co-creation approach. • Pitching a startup project
Other infos	This course is part of the "Project 4" set of courses in the engineering bachelor's program. The Project 4 courses share common transversal objectives but are tailored into various versions with distinct disciplinary objectives corresponding to the different streams in the program. Each student chooses the project proposed by one of their streams, or an alternative project like this one.
Faculty or entity in charge	EPL

Programmes containing this learning unit (UE)

Program title	Acronym	Credits	Prerequisite	Learning outcomes
Bachelor in Engineering	FSA1BA	5		🔍
Bachelor in Computer Science	SINF1BA	5		🔍