Teaching guide

IDENTIFICATION DETAILS

Degree:	Diploma in Entrepreneurship, Innovation and Technology Transfer (UFV Awarded title associated with Biomedical Engineering)
Field of Knowledge:	Science
Faculty/School:	Experimental Science
Course:	FOUNDING TECHNOLOGY-BASED COMPANIES
Type:	Compulsory Internal
ECTS credits:	4
Year:	3
Code:	24314
Teaching period:	Sixth semester
Teaching type:	Classroom-based
Language:	English
Total number of student study hours:	100

Teaching staff	E-mail
Florence d`Emmerez de Charmoy	florence.demmerez@ufv.es

SUBJECT DESCRIPTION

This course is based on the Lean Launch Pad methodology, developed at Stanford University, U.C. Berkeley Haas Business School, Columbia University and the National Science Foundation (NSF). It is a hands-on program that immerses student teams in their project and business idea by testing and validating their business model hypotheses outside the classroom and bringing the learning results in order to improve their BMC. Inside the classroom, it deliberately trades off lecture time for student/teaching team interaction and teacher mentorization. The course uses the Lean Startup process, with focus on Customer Development and the Business Model Canvas to collapse the infinite possibilities of a startup into a solvable problem. What this class does not include is the execution of the business model. In this course, implementation is all about discovery outside of the classroom and implementing their insights. Once discovery has resulted in a high degree of confidence that a viable business

model exists, it is time to create an execution plan.
On the theoretical side, student will get basic knowledge of entrepreneurship, entrepreneur ecosystem, Start up investments rounds, start up basic financials and metrics.

This class uses experiential learning as the paradigm for engaging the participants in discovery and hypotheses testing of their business models. From the first day we meet, the teams get out of the classroom and learn by doing.

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GOAL

1. Apply tools for the design of business models and value propositions
2. Identification of hypothesis as a driver of business creation.
3. Carrying out problem interviews to validate the link between the problem and the solution.
4. Learn to design experiments in the contexts of Lean Startup to validate the initial and most critical hypotheses of the business model.
5. Build the Minimum Viable Product (MVP) or prototype of your project / startup using the techniques and tools seen in the workshops of previous year.
6. Handle simple metrics analysis tools for the results of the experiments performed.
7. Apply the knowledge validated in the pivoting or iteration of the business models of the project / startup and the solution.

The specific objectives are:

? Create a project and business idea
? See validation processes, jobs-to-be-done methodology.
? Learn about the Lean Launch Pad methodology
? Understand deeply the BMC and validate the most critical hypothesis with potential clients, stakeholders, scientific experts.
? Come up with lessons learned from market and clients´ investigations
? Pivot hypothesis when proved wrong after clients´ validations
? Create a prototype of the solution
? Learn how to present in class the experimentations outcomes and lessons learned in their final pitch deck
? Learn how to pitch your business project (pitch deck).
? Get to know the financing methods and investments rounds of start ups.
? Understand the difficulties of entrepreneurship in the health sector and how to improve the odds.
? Learn how to structure a pitch deck and gain presentations skills in public and be able to apply to different start-up / congress contests in the area that may arise.
? Learn basic financials in order to create a P&L of their future business

PRIOR KNOWLEDGE

-A high proficiency level in English is recommended, as well as a clear teamwork attitude from all enrolled students.
-Fluent use of Microsoft Office applications (Word, Excel, PPT) is also recommended.

COURSE SYLLABUS

- The course will be distributed in three parts, the design of the business model, the validation of the model and the communication / selling phase.

1. Theory:

- Validation process and Jobs-to-be-done.
- What is the Lean Launch Pad methodology and how does it work.
- Balanced score card.
- Concepts of profitability, liquidity and viability.
- Metrics and basic financials for start ups (3 financial statements: P&L, Balanced Sheet, Cash flow statement).
- Risk analysis and contingency plan.
- Legal status of start ups.
- Start ups capital funding process and investors ecosystem.
- Marketing basic concepts.
- The effectuation concept in entrepreneurship.
- Patents: introduction on what, what types of patents, commercialisation strategies.
- Survival problems and how to avoid them in entrepreneurship projects in healthcare.
- Global trends in healthcare (Biotech & Biomed) in 2023.
- Gartner Hype Cycle.
- 3D and 4D printing.
- Blockchain

2. Practice:

•Value Proposition
•Customer Segments
•Distribution Channels
•Customer Relationships (Get/Keep/Grow)
•Revenue Streams
•Partners
•Resources, Activities and Costs (P&L with 3 years estimates)
•Validation process with potential clients
•4P´s
•SWOT Analysis

- Balanced scorecard.
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3. Pitch deck:

- What is a pitch deck and how to make one?

- Prepare your pitch deck and power point presentation.
- Build your prototype.
- Presentation of each team's project (10-12 minutes speech + Q&A). All team members will be obliged to present a small part of the project in English.

EDUCATION ACTIVITIES

The most effective way to learn these methodologies is from the experience itself, learning by doing. Therefore, during the workshops and sessions, a purely practical approach will be maintained, where each concept and tool will be practiced in groups and on your project / startup.
Students should go out to the "street", interview real clients, teachers, experts, prototype and design MVP, experiment and measure their assumptions about the business model in the market and look for facts in a methodical way. In the workshops, 30% of the time will be spent on the theoretical approach of the methodologies, tools and cases. A remaining 70% to perform practices on the project / startup itself.
The teacher will use innovative teaching methodologies like Project based learning , flipped classrooms, workshops, collaborative discussions and co-evaluation. The student must learn in an autonomous way and be part of their training . Therefore, we remind the student that this course involves an autonomous work of 60 hours during which at home the student will be in charge of reading the materials, listening to the videos lifted by the teacher in their CANVAS as autonomous tasks. This autonomous work will be majorly centered on their project, realizing all the task linked with the content of the final presentation, in order for the teacher to motorize the group and improve their practical work and deliverables.

DISTRIBUTION OF WORK TIME

CLASSROOM-BASED ACTIVITY	INDEPENDENT STUDY/OUT-OF-CLASSROOM ACTIVITY
40 hours	60 hours

SKILLS

Use state of the art methods & tools to generate innovation in a person-oriented manner in any organization.

Design innovative, scalable and profit-driven entrepreneurial projects.

Critical mindset, experimentation and problem-solving skills.

Develop Entrepreneurial mind-set based on fact-finding and presentation skills.

LEARNING RESULTS

- Student is able to use and experience a methodology for *scalable startups* students can use for the rest of their careers, both as a startup enterprise or as a new business within an existing organization.

- Student has learned how to fail quickly and to learn from those experiences
- Student learn how to develop a scientific approach to the validation of business hypothesis.
- Student understands the risk and uncertainty of new business proposals
- Student manage to develop effective business communication skills.

LEARNING APPRAISAL SYSTEM

ORDINARY CALL
1.- Class attendance & participation (**10%**). Individual evaluation based upon student's presence and collaborative team behavior. Minimum grade to pass is 5.
2.- Theory test exam with multiple answers (**40%**). Minimum grade to pass is 5.
3.- A final presentation in front of the jury to present the Pitch Deck of their business idea and project (**50%**). Minimum grade to pass is 5.
EXTRAORDINARY CALL
1.- Class attendance & participation (**10%**). Students will keep their presence mark of the semester. However, those students who have not obtain the minimum of 5 out of 10, will have a complementary task of watching theory videos prepared by the teacher and making a summary of the content.
2.- Theory test exam with multiple answers (**40%**). Minimum grade to pass is 5.
3.- If a student is not present in the final exam presenting the project with his/her group, this student will have to record and lift in the virtual class an oral presentation of 3 to 5 minutes of the part that he has been in charge of developing in his group/project during the semester (**50%**). Minimum grade to pass is 5.
Plagiarism behaviors, as well as the use of illegitimate means in the evaluation tests, will be sanctioned in accordance with the provisions of the Evaluation Regulations and the Coexistence Regulations of the university.

BIBLIOGRAPHY AND OTHER RESOURCES

Basic

Blank, S. G. Why the Lean Start-Up Changes Everything Harvard Business Review.

Croll Alistair & Yoskovitz Benjamin (2013) Lean Analytics: Use Data to Build a Better Startup Faster The Lean Series. CA: O'Reilly

Martin, R. (2009) The design of business: why design thinking is the next competitive advantage. Boston Mass.: Harvard Business Press

Schrage, M. (2014) The Innovator's Hypothesis. How Cheap Experiment are Worth more than Good Ideas.

Additional

Varios blogs web pages internet
http://steveblank.com/; http://www.startuplessonslearned.com/ ; https://strategyzer.com/

BLOGS web pages internet
http://customerdevlabs.com/; http://leanstack.com/ http://www.ashmaurya.com/ http://sethgodin.typepad.com/ http://paulgraham.com/articles.html http://cdixon.org/ http://grasshopperherder.com http://businessmodelhub.com/

https://lanzadera.es/14-errores-que-todo-emprendedor-deberia-tener-en-cuenta/