

Technion - Israel Institute of Technology William M. Davidson Faculty of Industrial Engineering and Management Technion City, Haifa 32000, Israel



Startup MBA Program

Project in Entrepreneurship Course

Course Number: 99777

Thursdays 15:00 – 19:00; Mini Semester 8, February 17, 2022

Classrooms: 424

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SYLLABUS

COURSE OVERVIEW

The course simulates the creation of a hi-tech or a biomedical start-up company, focusing on the seed or early stages, commonly considered as the most difficult and critical stages in the life of a start-up company.

Israeli new ventures have to think and go global from day one. To emphasize and learn the international aspects of entrepreneurship, the course will be international-focused, in which MBA program students from the Technion will form entrepreneurial teams of <u>up</u> to 4-5 students to develop commercialization plans for global growth.

The students will start from an idea that has matured for commercialization and/or for filing of a patent application (or at least has a potential for being filed as a new patent application). These ideas could be originated by various sources such as the students themselves; or the Technion Technology Transfer unit; or a new start-up firm; or a venture in one of the Technological Incubators; or any other source approved by the course instructors. The entrepreneurial teams in this course will have to: validate the technological opportunity, identify the need and the compelling product/service offer, validate the market need and size, identify and analyze valid business models, prepare a budget and financial projections, prepare all Fundraising Tools and finally deliver the business plan to skeptical investors, incubator managers and potential strategic partners.

In this course prominent investors from the Israeli venture capital market as well as experienced entrepreneurs or practitioners provide mentorship to the students to help in their entrepreneurial activities in order to assure best possible positive outcome. Drawing from their work experience and competence, they will guide and contribute to the students on all major aspects of their entrepreneurial commercialization plan.

The students will benefit by learning from experienced entrepreneurs, investors and practitioners, and the outcome will hopefully assist the commercializing process either towards building a new startup firm or by licensing the IP.

COURSE OBJECTIVES

The overall objective of the course is to provide the students with all the required tools and the hands-on experience for developing a business plan and commercializing the idea either by licensing the IP, or (preferably) by creating a hi-tech/biomedical start-up company, and presenting that plan to investors (VCs, Angels, and Incubators managers).

Specific goals of the course are:

- Discovering and evaluating business opportunities of a technological invention (patent) and making strategic choices;
- Gaining hands-on experience in business development, market research and validation, developing a business model, go to market plan, R&D plan, and preparing budget, financial projections, and an investment strategy and proposal;
- Gaining insights in financing and investment decisions in new ventures;
- Preparing a real-life business plan and the other Fundraising Tools;
- Completing a complex, real-life assignments plan within a fixed time frame;
- Making and pitching a formal presentation to potential investors;
- Improving presentation and pitching skills;
- Learning by doing and by interacting with industry experts;
- Learning from experienced entrepreneurs, investors and practitioners.

COURSE ORGANIZATION AND TEACHING METHOD

The students will play the role of a founders' team of a start- up. At the end of the course, each team has to present a solid business plan to a Panel of Investors, consists of Venture Capitalists, Angels, potential Strategic Partners, and Incubator Managers.

The action learning method will be used. During the sessions in class the course instructor or a guest lecturer will teach concepts and tools relevant for the various entrepreneurial activities, and the students' teams will present a weekly progress of their entrepreneurial activities, incorporating feedback on their presentation in the previous class, as well as the data collection and team work during the last week/s focusing on the new session's topic. The weekly progress reports should include interviews of potential customers, partners and key players. In each week, in addition to their presentations, the students should submit a weekly progress report including a short summary of the feedback they received on their previous presentation, and after reflecting, to refer to the following four items:

- a) what they thought;
- b) what they did;
- c) what they found; and,
- d) what is next.

At least one mentor will be assigned to each entrepreneurial team, in order to provide guidance and assistance in their entrepreneurial process from concept evaluation until the final versions of Business Plans are ready to be pitched to Israeli based Angels and Venture Capital investors. The mentors could be entrepreneurs, CEOs, marketers, technologists, or business people who are experienced in the specific technology or business that the project is based on or aiming to.

During the weekly presentations by the teams in class a panel of VCs, Angels, Incubator Managers and industry experts will be present and act as potential investors and give feedback to the teams. These panel members, as well as the mentors, are also available for consultation to the teams outside the class sessions. All teams are expected to be actively involved in the presentations of their peer teams and give feedback during class.

All teams will meet separately with course instructors at least twice to discuss open issues and get feedback on progress.

TEACHING MATERIALS

All lectures will be available on the course website.

Other reading material and textbooks will be announced.

Recommended Reading:

- -Start-up Nation: The Story of Israel's Economic Miracle, by Dan Senor and Saul singer.
- -Finding Fertile Ground: Identifying Extraordinary Opportunities for New Ventures, by Scott Shane.
- The art of the start, by Guy Kawasaki
- The Startup Owner's Manual: The Step-By-Step Guide for Building a Great Company, by Blank, S. and Dorf, B.
- Value Proposition Design: How to Create Products and Services Customers Want, by Osterwalder et. al.

STUDENT ASSESSMENT

Course Requirements:

- 1. Progress presentations by each team in class sessions. All team to submit their presentations, together with their weekly reports, by the day prior to class at 10 am;
- 2. Final business plan presentation in power point during last class;
- 3. Executive summary with back-up annexes to be submitted 2 weeks after last class.

Team presentations: about 4-5 progress presentations and one final Business
Plan presentation (team grade) 35%

Delivering the Elevator Pitch in class 5%

Submission of Executive Summary (team grade) 20%

Submission of supporting material in back-up annexes (team grade) 20% They are expected to be submitted as for a full business plan, e.g.:

- primary research conducted with customers and industry experts
- financial assumptions including costs figures and supporting evidence
- market data
- data on competitors
- evidence for assumptions on R&D plan and risks involved
- evidence on possible distribution channels
- references

Individual contribution to the project: (individual grade):

Based on participation in class and role in team presentations, as assessed by peer evaluation.

Team work (team grade):

The ability of the team to recognize and manage the strengths and weaknesses of team members and to manage conflicts in a constructive way.

Total: 100%

Attendance in classes is required, while last session is mandatory. Due to travel for work or due to reserve duty, students may miss one class only. Missing a second class is only possible after a written permission by the course instructor. When missing more than two classes, students will not be credited for the course.

10%

COURSE SCHEDULE

Each week students will be lectured on the presentation content requirements of the week thereafter.

Session 1:

- Introductions by students.
- Course schedule and requirements and ways of working.
- Presentation of the projects/patents, technology and potential applications by the students.

Session 2:

- Lecture: Finding your target market
- First feedback on patents/ideas by teams: technology assessment, market application scope and business model
- Team's Work plan

Session 3:

- Lecture: Business Models and Revenue Models in hi-tech.
- 15 minutes presentations by all teams of multiple opportunities (opportunity cube): Alternative applications, markets, competition and business models for the patent/technology/idea.
 - Class discussion and feedback by mentors, course instructors and students.

Session 4:

- Lecture: Value Chain
- Lecture: Managing Innovation and R&D
- Presentation by all teams on product- market combinations, size of markets, customer needs and value propositions. Class discussion and feedback by investors, mentors course instructors and students.

Session 5:

- Lecture: Financial Modeling and the financial part of the business plan
- Lecture: Building the First Budget for your New Venture
- Presentations by all teams on technology, IP and R&D plan. Class discussion and feedback by mentors, course instructors and students.

Session 6:

- Lecture: Business Plan and Fundraising Tools
 - Mission Statement
 - Elevator Pitch
 - One-pager
 - Executive Summary
 - Business Plan Presentation Deck
 - Business Plan Structure
 - Sources of Information/Data

Session 7:

- Guest Lecture: A Fascinating Success Story of a Israeli Company
- Presentations by all teams on business model and go to market strategy and plan. Class discussion and feedback by investors, mentors, course instructors and students.

In the two weeks before the final presentation all teams must meet again separately with the course instructors.

Session 8:

- Guest Lecturer by VC: How to make the perfect investor Pitch?
- Presentation by all teams on financials and milestone plan
- Elevator Pitch delivery in class by one representative of each team and feedback by mentors, course instructors and students.

Session 9:

- Final Presentations of Business Plans by the teams to a Panel of VC's, Angels, Incubator Managers, Technion Business Unit managers and course instructors
- 15 minutes each and an additional 10 minutes for questions and feedback by the Investors Panel
 - (In reality it is recommended to have one or two presenters; however, in this course each team member must present at least one slide and must be well familiar with all the other slides.)