

High-tech Entrepreneurship

20 hours (9 lectures) – 2 credits

Version of February 4, 2022

This 20-hours course is designed to introduce participants, mainly **PhD students** from different disciplines (**STEM**, but also **Social Sciences** and **Humanities**) and also young researchers and post-docs, to the **basic** knowledge and competences about high-tech entrepreneurship.

More precisely, the course will provide participants with the basic understanding of the role, analytics and process of business planning that lead to the creation of **new innovative business ventures**, especially regarding those which are generated within an academic environment, on the basis of public research.

They will learn and gain direct experience about patents, university-industry collaborations, contract research, starting a new company, marketing high-tech inventions, etc. The objective is **to bring participants to have their business model and business plan ready at the end of the course**.

The course will be in presence, in Pisa. However, students from universities far from Pisa can participate through the webex platform.

The course is designed mainly – but not only – for participants from universities which are part of the **Jotto** initiative (i.e. Scuola Superiore Sant'Anna, Scuola Normale Superiore, IMT Lucca, IUSS Pavia, GSSI L'Aquila, SISSA Trieste). Students from other universities can also apply.

The course has been designed both for those who are planning to set up an innovative and/or high-tech start-up and for those who might benefit from the course's contents in an existing company, in their professional activities or in a research context. The course is organized in collaboration with the EELISA project and Start Cup Toscana

In order to attend to the course, please register by sending an e mail to **a.piccaluga@santannapisa.it**

The course is coordinated by Andrea Piccaluga and Alberto Di Minin, who will be present in every lecture, and its contents and organization are shared within the Jotto initiative. External “guest teachers” will also be invited.

Andrea Piccaluga is professor of innovation management at the Institute of Management, Scuola Superiore Sant'Anna (SSSA), has been delegate for technology transfer at SSSA for many years and has been president of Netval (Network per la Valorizzazione della Ricerca) from 2014 to 2019.

Alberto Di Minin is professor of management at the Institute of Management, Scuola Superiore Sant'Anna. He is also Research Fellow with the Berkeley Roundtable on the International Economy (BRIE), University of California – Berkeley. He is the Director of the Confucius Institute of Pisa, and the Director of the Galilei Institute in Chongqing University.

Students interested in obtaining the **two credits (CFU)** need to follow 80% of the lectures and prepare a business plan for a new innovative start-up at the end of the course, either individually or with other students.

PROGRAMME

Lecture #1 – Entrepreneurship as a possibility for generating impact from public research

February 15, 2022 – Aula Magna Storica

Time: 2.30 pm-4.30 pm

With the presence of Monia Gentile and Alessandra Patrono (SSSA's Technology Transfer Office)

Topics: description of the course, participants' presentation, the fundamentals of knowledge exchange and Technology Transfer; the valley of death; financial needs in different phases of the start-up process; FFF, business angels and VCs; TRL levels and proof of concept initiatives; the role of the Business Plan; how VCs evaluate a new team.

Lecture #2 - From the idea to starting up a company. Planning and re-planning your venture: the Business Model Canvas and Business Model Innovation

Guest speakers: Monia Gentile and Alessandra Patrono (SSSA TTO)

February 22, 2022 – Aula Magna Storica

Time: 2.30 pm-4.30 pm

Topics: purpose, Open Innovation, teams' composition, conflicts and communication; motivations to set up a company; inspiration from some real cases, introduction to Technology Transfer Offices. The business model canvas tool; the role of the business plan and its composition; how and when a BP has to be written; where info can be found.

Lecture #3 – Not only technology! Administration, incentives, finance and taxes in start-ups

Guest teacher: Andrea Tenucci (Institute of Management, SSSA)

March 1, 2022 – Aula 10

Time: 2.30 pm-4.30 pm

Topics: basic info about a balance sheet; basic administration and taxation; financial and economic cycles.

Lecture #4 – The importance of Intellectual Property rights (with a focus on LS sector)

Guest teacher: Massimiliano Granieri (Università di Brescia)

March 8, 2022 – Aula Magna Storica

Time: 2.30 pm-5.00 pm

Topics: what is Intellectual Property? The patenting process; from invention to patents and licenses in university; where to look for patent information; to patent or not to patent?

Lecture #5 - Tips and tools for valorization of results in the LS sector

Guest teacher: Laura Spinardi (Policlinico di Milano and Netval)

March 15, 2022 – Aula 3

Time: 2.30 pm-5.00 pm

Topics: Examples and best practices of intellectual property valorization and exploitation in the field of Life Sciences. What is patentable? Which are the best strategies for the protection of results in these fields?

Lecture #6 – Let's do it seriously: going beyond the first steps and scaling up. How to deal with industrial and financial partners.

Guest teachers: spin-off companies (tbc)

March 22, 2022 – lecture room to be defined

Time: 2.30 pm-4.30 pm

Topics: more about entrepreneurial motivations; how to engage an industrial partner; bridging between university and industry; how to deal with initial funders; from prototype to products: where to find info and technical solutions; to grow or not to grow? Is it better to own a small cake or a slice of a big cake?

Lecture #7 – “Where to do it right”. Proximity in entrepreneurial activities and financing

Guest teacher: Sandro Montresor (GSSI) and Francesca Ghinami (GSSI)

March 25, 2022 - lecture room to be defined

Time: 2.30 pm-4.30 pm

Topics: individual vs. place-specific determinants of entrepreneurship: “get the context right”; spatial and relational proximity in entrepreneurship: “get closer, in the right sense, and not too much”; empirical application to the VC access by Italian innovative start-ups

Lecture #8 – Pitch it well. Towards Start Cup Toscana 2022

Guest teacher: Valentina Maltagliati (tbd) and Alessandra Patrono

March 29, 2022 - lecture room to be defined

Time: 2.30 pm-4.30 pm

Topics: how to present your ideas in different contexts. This will be also an opportunity to get ready for the final session.

Lecture#9 – Final session: presenting your idea to investors

April 5, 2022 - lecture room to be defined

Time: 2.30 pm-5.30 pm

Topics: in this lecture we will summarize the course's content and organize participants' presentations.