

High-tech Entrepreneurship

20 hours (9 lectures) – 2 credits

Version of February 1, 2023

This 20-hours course is designed to introduce participants, **PhD and undergraduate 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.**

Participants will have the opportunity of setting up real proposals for start-ups which they will be able to use for start-up competitions such as Start Cup Toscana or other possible calls launched by Sant'Anna and other universities.



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 and from EELISA Network 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.

The course will be in presence, in Pisa. Only students from universities which belong to the EELISA network will be allowed to follow via web.

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, 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 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.

PROGRAM

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

March 9, 2023 – Aula 3, Via Cardinale Maffi, Pisa

Time: 2.30 pm-5.30 pm

Andrea Piccaluga and Alberto Di Minin, with the presence of Marco Frey, Sant’Anna delegate for Third Mission, 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

Andrea Piccaluga and Alberto Di Minin. Guest speakers: Monia Gentile and Alessandra Patrono (SSSA TTO)

March 17, 2023 – Aula 14, Via Cardinale Maffi, Pisa

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 20, 2023 – Aula 3, Via Cardinale Maffi, Pisa

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: Barbara Politi

March 29, 2023 – Aula Magna Storica, Piazza Martiri della Libertà, 33, Pisa

Time: 2.30 pm-5.30 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 – Let's do it seriously: going beyond the first steps and scaling up. How to deal with industrial and financial partners.

Guest teachers: Gioia Lucarini (Relief) and Massimiliano Simi (MMI)

April 4, 2023 – Aula Magna Storica, Piazza Martiri della Libertà, 33, Pisa

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

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

April 19, 2023 – Aula Magna Storica, Piazza Martiri della Libertà, 33, Pisa

Time: 2.30 pm-4.30 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 #7 – Pitch it well: review your business plan to apply to competitions such as Start Cup Toscana 2023

Guest teacher: Valentina Maltagliati, Valentina Cucino and Alessandra Patrono

May 3, 2023 - Aula Magna Storica, Piazza Martiri della Libertà, 33, Pisa

Time: 4.30 pm-6.30 pm

Topics: how to present your ideas in different contexts. This will be also an opportunity to get ready for the final session. Key aspects to improve in the business plan. This will be also an opportunity to get ready for the Start Cup Competition or Building the future competition

Lecture #8 – Business angels and venture capitalists: how do they decide about financing your start-up?

Nicola Redi

May 8, 2023 - Aula Magna Storica, Piazza Martiri della Libertà, 33, Pisa

Time: 2.30 pm-4.30 pm

Topics:

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

May 17, 2023 - Aula Magna Storica, Piazza Martiri della Libertà, 33, Pisa

Time: 2.30 pm-4.30 pm

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

<p>Valentina Cucino is a post-doctoral fellow in Management at the Scuola Superiore Sant'Anna in Pisa and a member of the LISALAB (Lab for Innovative Entrepreneurship and Academic Spin-offs). She is a mentor in entrepreneurial acceleration programmes and supports young researchers in the ideation and creation of research spin-offs. She collaborates with Netval on reporting activities.</p>
<p>Monia Gentile is the Manager of the Knowledge Transfer Office of the Scuola Superiore Sant'Anna since 2005. After the Master Scientific in Electronic Engineering in 2001 she attended many classes on IP management and entrepreneurship. Since 2015 she is the coordinator of the joint technology transfer office of six universities in Italy www.jointto.it. Since 2016 she is member of the Board of Directors of the National Association for Innovation Prize (www.pnicube.it).</p>
<p>Gioia Lucarini received her MS degree in Biomedical Engineering from the University of Pisa in September 2009. In the same year she joined the BioRobotics Institute of the Scuola Superiore Sant'Anna as a Ph.D. student and in 2013 she obtained the Ph.D. in Medical Robotics. Since March 2019 she is CEO of Relief srl (www.reliefsrl.com), a startup, spin-off of Scuola Superiore Sant'Anna, with the main objective to develop an innovative endourethral sphincter against urinary incontinence.</p>
<p>Valentina Maltagliati is graduated both in Law and Psychology at University of Florence, and teaches Public Speaking and Self Communication in Business Schools and Business Incubator of the University of Florence. Business coach with NLPItaly, Life and Extended DISC Coach with PLS Coaching, Mentor for MIP Murate Idea Park and CCIAA (Florence Chamber of Trade and Artisanhip) Valentina is also a Counselor for the Peiffer Academy of Counselling in London, and she wrote the first book dedicated to Elevator Pitch in Italy and works as pitching trainer and coach in many spin-off and startups' courses and competitions.</p>
<p>Alessandra Patrono has extensive experience in the fields of innovation and technology transfer. During her professional experience she has carried out research on these topics, at regional and national level. Since 2010 he has been part of the Sant'Anna School's technology transfer office team, where she is involved in patent portfolio management, support for spin-off companies activities, licensing of patents and exploitation of research results.</p>
<p>Andrea Piccaluga is the Director of the Institute of Management at Scuola Superiore Sant'Anna. He has been President of Netval (www.netval.it) from 2014 to 2019 and vice-president from 2019 to 2022. He has published articles and books in the broad field of knowledge transfer and has also had management roles in this area. In the last few years he has been increasingly active in the field of purpose-driven organizations.</p>
<p>Barbara Politi Graduated in Industrial Chemistry at the University of Pisa; IP Manager for a big pharma company for 15 years. Italian Patent Attorney, internationally certified patent documentalist and founder of AIDB, the 1st Italian Association of Patent Documentalist.</p>

Owner of ADDI' Srl , a consultancy company based in Livorno, specialized in Intellectual Property and in strategic management of innovations, which works with more than 70 companies from all the industries.

She attended at tens of specialization courses in the field of innovation, competitive assessments, technology transfer and international contracts, and she teaches these matters in numerous university and company's associations.

Laura Spinardi is the head of the Technology Transfer Office at Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico in Milan. She is a graduate in Biology from the University of Turin and received a PhD in Neuroscience at the New York University Medical Center, after which she moved as a postdoctoral fellow to the EMBL in Heidelberg and then in Monterotondo, Rome. After working successfully as a research scientist in the USA, France, and Germany, she joined the Policlinico of Milan in 2007. There she was instrumental in setting up the Technology Transfer Office and managing IPR protection, exploitation strategies, industry networking and spin-off creation. She is accredited Registered Technology Transfer Professional (RTTP) by the Alliance of Technology Transfer Association (ATTP) and a member of AICIPI and ASTP.

Andrea Tenucci is Associate Professor of Management Accounting and Business Administration at the Institute of Management, Sant'Anna School of Advanced Studies. His main fields of research are cost analysis and management, strategic management accounting, performance measurement (financial and non-financial - ESG) and corporate reporting.