## UNIVERSITÀ DI PAVIA – DOTTORATO DI RICERCA IN FISICA

## ENTREPRENEURSHIP FOR PHYSICISTS: AN INTRODUCTORY COURSE

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# January 25-27, 2017 – Physics Department, via Bassi 6, Pavia

## Updated January 9<sup>th</sup>, 2017

Active participation is restricted to PhD students in Physics. There are still a few places left – if you are interested, please contact the PhD coordinator, Prof. Lucio Andreani, as soon as possible. Active participants are asked to (see detailed program below):

- provide a motivation document before coming to class;
- read the case entitled: "Fiber-top technology at a turning point: decision making in an academic technology transfer process" before coming to class;
- prepare a presentation on the case they read, to be given on January 26<sup>th</sup>, by working in small groups.

Active participants should plan full-time attendance to the course on Thursday 26 January (full day) and Friday 27 January (morning). They will receive a certificate at the end of the course.

**Participation as auditor**: no motivation document, assignment or presentation – free attendance to the lectures, within the limits of the lecture room. Post-docs, graduate students from PhD schools other than Physics, researchers etc are welcome to participate as auditors, within the limits of the lecture room.

Info and news will be posted on the PhD web site: <u>http://www-2.unipv.it/dottorati/scienzeetecnologie/fisica/n/web\_PhD/index.php?option=com\_content&view=section&id=24&Itemid=125&Iang=it</u>

### SCOPE OF THE COURSE:

This course has three objectives:

- 1. To make students appreciate the advantages offered by a more entrepreneurial attitude towards technology transfer opportunities;
- 2. To present the most basic tools that allow entrepreneurs to bring new ideas to market;
- 3. To give students the opportunity to appreciate the differences and analogies between problem solving in physics and problem solving in business.

## BEFORE COMING TO CLASS: "WHO ARE YOU?"

Each student is kindly asked to provide a short document where he/she tells the teacher why he/she will be following the course and what he/she would like to learn. The document (half a page is more than enough, but students can write more if they wish) must contain the first and last name of the student. Adding a photo is recommended but not compulsory.

### **BEFORE COMING TO CLASS: ASSIGNMENT**

Students are requested to read the case entitled: "Fiber-top technology at a turning point: decision making in an academic technology transfer process" before coming to class.

#### **PROGRAM:**

Lectures will be held on Jan. 25 from 17 to 18 PM, on Jan. 26 from 9 to 10 AM and from 2:30 to 3:30 PM, and on Jan. 27 from 9 to 11 AM. Between the two slots of Jan. 26, students, divided in groups, are requested to prepare a presentation on the case they read. They should plan to spend the second half of the morning on this assignment.

The program is flexible, in that the teacher will adapt it to how the class is doing and what is most interesting for the students. Tentatively, however, it will follow this structure:

- 25/1: Preliminary meeting, knowing each other, introductory presentation: *Why this course can be more important than you thought.*
- 26/1, morning:

Lecture 1: "The worst mistake of my life and how you can avoid it" I will give you four good reasons why, this year, you should start your own business. I will then introduce you to effectuation theory and give you instructions for the analysis of the case. - 26/1, afternoon:

Presentations from students. (Students interested to know how things really went are very welcome to attend the PhD colloquium at 4 PM.)

- 27/1, part 1: Planning

*I will introduce you to four planning steps that can be found in almost all modern theory of technical innovation.* 

- 27/1, part 2: Business Canvas Following the Business Canvas approach, I will show you how you can plot your entire business model in one sheet.
- Want to know more?

I will give you a list of articles and books that you should definitively read if you would like to know more.