“Academic Entrepreneurship
the business of academic commercialization”

A course for faculty and graduate students who are interested in learning more about entrepreneurship in an academic environment

Course Syllabus
October 22-December 10, 2015

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Academic Entrepreneurship

Introduction

The pursuit of innovation development and commercialization at Pitt requires an entrepreneurial culture that melds research with market application. Academic entrepreneurship requires motivation, encouragement and support. To get from the benchtop to the market requires an understanding of how the commercialization process works at Pitt and what resources are available to innovators. The academic entrepreneur must learn about business, the realities of entrepreneurship, and the creative process that can translate research into commercial success.

Academic entrepreneurship isn’t necessarily about giving up the academic life to become CEO of a technology-based start-up company. At Pitt, we focus on the innovation development process, which encompasses market problems and solutions, marketability, collaborative idea sharing, entrepreneurial dynamics, profit-driven economics, and successful technology transfer. This course is designed to address those issues and help attendees launch their own innovation development and commercialization efforts.

The course is hosted and funded in part by the Office of the Provost, in conjunction with the Innovation Institute. The Institute serves as the hub of innovation, commercialization and entrepreneurship at the University. The course was designed in partnership with the Katz Graduate School of Business and its Center for Executive Education (CEE), which also administers the course.

Who should attend?

This short course is designed for faculty, staff and graduate student innovators – anyone with an interest in transforming his or her University research into innovations with commercial potential. The scope of the course allows for a diverse mix of academic disciplines, from the Health Sciences and Physical Sciences to Engineering and the Social Sciences. This academic diversity encourages a productive interaction that leads to new ideas and collaborations.

We encourage faculty members to take the class with students who are working with them on research projects. As a team they can learn about commercialization and the roles that they may play in the process of transferring the technology to a marketplace product.

Logistics

Course sessions are held on Thursday nights, from 6-9 P.M for seven weeks beginning October 22 and ending on December 10, 2015 (no class during Thanksgiving week) in Room 528, Alumni Hall. A light supper will be served prior to the start of each class session.

Instructor

The course is led by Babs Carryer, Director of Education and Outreach for the Innovation Institute.
Guest speakers/other instructors

Greg Coticchia, Director of the Innovation Institute’s Blast Furnace (Pitt’s student accelerator) and Entrepreneur in Residence

Marc Malandro, PhD, Founding Director of the Innovation Institute and Associate Vice Chancellor for Technology Commercialization

G. Richard Patton, PhD, Clinical Associate Professor of Business Administration, Katz Graduate School of Business

John Prescott, PhD, Thomas O'Brien Chair of Strategy, Professor of Business Administration, and Area Director for Organizations and Entrepreneurship, Katz Graduate School of Business

Mark Redfern, PhD, Vice Provost for Research, University of Pittsburgh, Office of the Provost

Jesse Shearin, Global Director Corporate Quality, Operational Excellence Protective & Marine Coatings, PPG Industries

Course sessions

This course is designed to take participants through the process of transforming research into innovations with commercial potential, while also teaching them about the rigors of the business side of commercialization.

The course also includes a hands-on component which will allow you to apply the development/commercialization process to your own ideas – with the help of small teams of fellow attendees. You’ll be given time during each session to collaborate with your teams. By the end of the course you should wind up with a potentially commercial idea, market research to back it up, a commercialization plan, and the ability to communicate your idea clearly, concisely, and simply to scientists, potential licensees and investors alike.

Session 1: Innovation commercialization at Pitt – The Office of the Provost and the Innovation Institute will introduce attendees to Pitt’s perspective on commercialization, including its history and why the University is committed to the process. The second half of the session will provide an in-depth look at the commercialization process and policies at the University, including patenting/protecting intellectual property, business opportunity development, licensing, public disclosure issues, start-up company considerations, etc.

Guest speakers: Mark Redfern, Office of the Provost; Marc Malandro, Innovation Institute

Session 2: Case-study of the “business” of innovation commercialization – This interactive class will explore the business complexities of taking an innovation to market. Using a case study that examines one company’s entrepreneurial challenges in commercializing a new drug, from regulatory hurdles, efficacy issues and pricing questions, to marketing, education and distribution dilemmas, we will divide you into teams that will take on the role of product manager. Then you will have to prioritize the appropriate steps and make decisions before comparing them with the actual decisions that were made.

Instructor: G. Richard Patton, Katz
Session 3: Innovation workshop – This stimulating, hands-on workshop will look at the keys to successful, creative innovation development.

Instructor: G. Richard Patton, Katz

Session 4: Fueling the creative innovation process – This hands-on session, based on a creative process called “Lateral Thinking™,” will give attendees several helpful, creative tools to stimulate new ideas and find innovative solutions to problems which they are trying to solve. The goal of the session is to encourage effective creative collaboration with others and to help you identify ideas with commercial potential.

Instructor: Jesse Shearin, PPG

Session 5: Market research and business opportunity development – The adage, “Build it and they will come,” doesn’t hold true when it comes to innovation development. This session will teach attendees how to approach early market research and competitive analysis that will help them determine the most promising commercial applications for their research. They’ll learn how to identify the right markets, explore end-user opinions, market validation, and other market research issues. Teams will gather during the last part of the session to discuss their own market research and business opportunities in preparation for the final presentations.

Instructor: John Prescott, Katz

Session 6: Communicating value – Attendees will learn the importance of understanding your customer and the value proposition of your product/service to them. Using the Business Model Canvas approach developed by Alex Osterwalder, this session will use real-life examples of how to think and refine your value proposition to customers and end users.

Instructor: Greg Coticchia, Innovation Institute

Session 7: Team presentations and graduation – During this session, each team will give a presentation that includes:

- The problem that you are solving
- The solution
- The research and key players involved
- Market, customers
- Value proposition
- Commercialization and milestone plan

Certificates of completion will be awarded to all active participants in the course.