

Washington University in St. Louis

Graduate Level Entrepreneurial Courses

CRTC – Medical School

Drug and Device Development - M17-518 (3 credits)

FALL Thursday 5:30-8:00 PM

Instructors: Carl Siekmann & Peter Takes

Overview of commercial development pathways for both pharmaceuticals and medical devices, from inception to market. Students gain an appreciation for the role clinical study programs play in the broader scope of product development. Topics will include preclinical, clinical, regulatory, and marketing factors which influence discovery and development of new medical products.

Introduction Evidence Based Entrepreneurship – M17-542 (1 credit)

SPRING Monday 4:00-5:30 PM

Instructor: Emre Toker

This course provides an overview on how to identify viable new venture concepts in the biomedical field, build plans for a sustainable and scalable enterprise, and get ventures off the ground. In addition to the workshop, students will engage in hands on practice applying these concepts to their own venture capital idea as well as be exposed to venture capital resources available at Washington University and in the local St. Louis area. This class is specifically targeted at scholars already holding or currently pursuing an advanced degree in a health science field.

Industry Partnering: Collaborations in Translational Research - M17-519 (3 credits)

SPRING Tuesday 5:30-8:00 PM

Instructor: Carl Siekmann

Innovative new products are the life blood of the biopharmaceutical industry. In the US most discovery research originates at the university level and is transferred via licensing agreements to industry partners or to start-up biotech companies for final development and commercialization. The process of moving this innovation from lab to industry then to the patient is the focus of this course. The course examines the market for intellectual property that exists between academic institutions and the private sector and explores commercialization of translational research through collaboration with industry partners.

Arts & Sciences

Biotech Industry Innovators – L41-5014 (3 credits)

SPRING Wednesday 5:30-8:30 PM

Instructor: Pete Peters

Investigates issues and decisions that inventor/scientists, investors, founders, business people, lawyers and others might typically encounter when they are considering the application and commercialization of early stage scientific discoveries. This course is intended for anyone interested in working in the life sciences industry as a chief scientist, entrepreneur, manager, consultant, or investor. It focuses on the issues and decisions that researchers typically face when considering how a discovery might be moved from a university laboratory to actual use. The course will include examples and case studies from drug discovery, diagnostic tool/medical device development and possibly other products Bio-Entrepreneurship is offered to Post Docs, PhD and masters level students who have or are pursuing advanced degrees in science.

Note: Open and available to WUSM students but check with DBBS about capacity.

Washington University in St. Louis

Graduate Level Entrepreneurial Courses

Olin Business School

Business Planning for New Enterprises [The Hatchery] - B63-524 (3 credits)

FALL & SPRING Tuesday 4:00-6:00

Instructor: Cliff Holekamp

In this course, student teams pursue their own business idea or support outside entrepreneurs by researching, writing, and pitching business plans for new commercial or social ventures. Enrolled students can recruit a team to work on their own business idea, or can join a team working on another's idea. Outside entrepreneurs and scientific researchers wishing to recruit student teams must apply in advance to be considered for student selection. Most of the work is done outside the classroom with the support of mentors, advisors and the instructor. Classes are held once per week for the first half of the semester. Workshops and rehearsals are required in the second part of the term. Students make final presentations to a panel of outside judges including venture capitalists, angel investors, entrepreneurs and people involved with early stage ventures.

Prerequisites: Introduction to Entrepreneurship (B63-421 or B63-521), Social Entrepreneurship (B63-500T or S50-5060) or permission of the instructor.

Note: Open and available to WUSM students

CEL Entrepreneurial Consulting Team (CElect) – B63-550X (3 credits)

FALL & SPRING Date/Time Varies

Instructor: Cliff Holekamp

Early stage companies provide a unique environment for students to make a meaningful impact on the future trajectory of a growing organization. CElect is an experiential learning course that matches teams of Washington University students with St. Louis area start-up ventures to perform defined management consulting projects. In addition to the required day-long orientation and concluding sessions taught at the T-REx incubator downtown, students will work directly with the professor and with their client company on a consistent, but variable, schedule depending on the project needs over the course of the semester. In addition to being embedded on a project for an early stage company, students will have the opportunity to engage with other entrepreneurship support organizations such as local accelerators, venture capital firms, and incubators. Law Students: Prerequisite/corequisite: Corporations. This course is cross-listed with the Business School, B63-550X, and is co-taught by Profs. Clifford Holekamp and Hillary Sale. Grading for Law Students is modified pass/fail: HP (3.94), P, LP (2.98), F (2.50). Interested students should apply/register by adding their names to the waitlist in WebSTAC, and then sending their resumes to Professor Sale. They will be notified soon as to whether they got in or not. Once accepted, students may not drop this class. Enrollment is limited.

Note: Project-based experiential course where teams of students perform management consulting projects for STL startups. Enrollment is by application. Cliff Holekamp would love to include a few WUSM students but would need to coordinate to be sure their applications get through.

Entrepreneurial Teaming for the Entrepreneurship Platform – B63-560C (.5 credits)

FALL Saturday 10/1/15 9:00 AM-3:00 PM

Instructor: Cliff Holekamp

Olin entrepreneurship students should graduate with not only the needed academic skills necessary to pursue careers in entrepreneurship, but also with a practical savvy that can only come from real world experience, relationships, and context. In this course students will develop and perform their own projects to be conducted for a local entrepreneurial firm. Students must show entrepreneurial initiative in partnering with an established entrepreneur (revenue producing, not idea/seed stage) to design their own project. Students may leverage existing Olin relationships with EO (Entrepreneurs' Organization), ITEN, Capital Innovators, Cultivation Capital, etc. to find entrepreneurs with whom to

Washington University in St. Louis

Graduate Level

Entrepreneurial Courses

partner. Projects are to be completed within the timeframe of the semester. Prerequisites: B63-521 or B63-500T; the course is solely for Entrepreneurship Platform candidates in the second year of the MBA program.

Note: Annual platform/track summit, more of a career conference than a course. WUSM students welcome but more geared towards MBA careers in entrepreneurship.

Introduction to Entrepreneurship – B63-521 (3 credits)

FALL Saturday 8:00A-1:00P (9/12, 9/19, 9/26, 10/3, 10/17, 10/24, 10/31, 11/14, 11/21)

SPRING Monday & Wednesday 1:00-2:30 PM

Instructor: Cliff Holekamp

This course is designed not only for the student with a burning passion to start his/her own business, but anyone who believes that entrepreneurial skills are an essential element of business success. "Introduction to Entrepreneurship" is taught primarily via the case method. Most case discussions will be followed by a relevant guest speaker—either an experienced entrepreneur or a professional from the investment community. You will hear from entrepreneurs and corporate managers with an entrepreneurial flair, some who have experienced great success, and others for whom success has been elusive. The structure of this course follows the evolutionary process of a new venture. Topics covered include: Idea Assessment, Organization Formation, Capitalization, Growth, and Exit. Corporate Entrepreneurship also will be explored. This course integrates much of what you have learned in your core courses and challenges you to apply those learnings. In each class you will be expected to make difficult business choices with less than perfect information, dealing with ambiguity and uncertainty, much like a real life entrepreneur. Analytical rigor will be emphasized throughout and you will be expected to have "run the numbers" for each case. A central element of this course is the opportunity to pitch your "business idea" to classmates via a 5 minute "elevator pitch". Those with the winning business concepts will recruit classmates to join their team to conduct a comprehensive feasibility analysis. Your "final" will consist of a formal 20 minute dress presentation of your idea—much like you would pitch your business concept to a potential investor.

Prerequisite: This course is strongly recommended for students interested in participating in B63-524.

Note: Open and available to WUSM students

Social Entrepreneurship – B63-500T

Cross listed at Brown School as S50-5060

The Basics of Bio-Entrepreneurship – B63-500U

Cross listed at Arts & Sciences as L41-5014

University College

Industry Partnering: Collaborations in Translational Research – U80-529

Cross listed at the Medical School as M17-519

Drug and Device Development – U80-518

Cross listed at the Medical School as M17-518

Washington University in St. Louis

Graduate Level

Entrepreneurial Courses

Brown School

Social Entrepreneurship – S50-5060 *(3 credits)*

FALL & SPRING Wednesday 1:00-4:00 PM

Instructor: Joe Steensma

This course is about using entrepreneurial skills to craft innovative solutions to lead and fund efforts to resolve social needs. Entrepreneurs are particularly good at recognizing opportunities, exploring innovative approaches, mobilizing resources, managing risks, and building viable enterprises. These skills are just as valuable and essential in the 'independent' social sector as they are in the 'private' business sector. While entrepreneurship can be broadly defined as any innovative effort that brings new processes, approaches, and solutions to bear on opportunities and problems; this course focuses more specifically on the opportunity to create innovative 'earned income' revenue solutions to funding mission based social organizations. Additionally, while social entrepreneurship can conceptually apply to both for-profit and not-for-profit models, this course is focused on the not-for-profit organizational form, which is seeking to create social value and fully leverage its not-for-profit tax status. This course will be co-sponsored and co-taught by the George Warren Brown School of Social Work and the Olin School of Business as an innovative approach to blend cross-discipline competencies to help solve the social issues of our world.