

THE WHARTON SCHOOL  
University of Pennsylvania  
HEALTHCARE ENTREPRENEURSHIP  
HCMG 867  
SPRING 2019  
Tuesdays 3:00 – 4:30 PM – S Room TBD  
Syllabus Date: 01/10/2019

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**OVERVIEW**

HCMG 867 is designed to teach students the process of creating a new viable venture - from idea to launch. It is a dynamic and interactive course organized around projects undertaken by teams of 4-6 registered students from across campus. This course is designed not only for

students with immediate entrepreneurial aspirations in healthcare, but also for any student considering starting an entrepreneurial venture at some point in his or her career. In the first two weeks, teams will research, craft, test and morph their idea into a viable business concept. In the remaining weeks of the semester, they will further refine their concept and develop a strategy and plan to attract financial, human and other resources. At the end of the semester, teams will present their plan to a panel of experts and potential investors to simulate the funding process. The course builds on important research, and finding as they relate to the process of new venture creation. The teaching method is primarily learning by doing through a structured process, supported by relevant lectures and exercises. Extensive field research, teamwork, and prototype product development are integral to the course. Learning is further enhanced through meetings with the instructor, coaching by experienced mentors and review by peers. Since admittance to HCMG 867 is by application, team formation for the course takes place during the first two weeks of the course. Informal student meetings/mixers will be held to facilitate team formation and idea generation.

During the course of the semester, students will be expected to prepare certain group-specific deliverables, craft a business plan and pitch presentation. Class discussions, led by course instructors as well as individuals drawn from entrepreneurs, operators, customers, and investors in healthcare, will present relevant insights impacting strategic, execution, and financing risks for early stage healthcare ventures.

Non-Wharton Penn students or post-docs are welcome to take the class for credit or audit with permission from the instructors. If for credit, then students will need to make arrangements with their primary departments. Other Penn affiliates (e.g., MD, DVM, PhD candidates and faculty) or those not affiliated with Penn may also audit the course with permission from the instructors, and will be expected to fulfill all of the responsibilities of students taking the course for credit.

## **BUSINESS PLAN AND PRESENTATION**

The primary deliverables are a pitch to a panel of investors (to include a PowerPoint presentation) and a written business plan highlighting the essential features of the business, market, competition, operating plan and financial projections, etc. and a separate executive Summary of the business plan. **The Business Plan and the Investor PowerPoint presentation are due on April 30, 2019.** Teams will be required to provide certain deliverables with respect to their interim progress in the form of written work or presentations.

## **PROJECT SELECTION – PRELIMINARY WORK**

**Teams are required to prepare and hand in a Problem and Unmet Need Overview and Product Description, which is due by the third class (January 29, 2019).** Course instructors, TAs, staff and mentors will assist student in selecting their projects. As in past years, some students will bring projects to class and will be looking for others to join a group. Otherwise, where needed, through relationships with Penn, Penn Medicine and other technology transfer offices, as well as through other support organizations and start-up and early stage companies.

## TEAMS

Teams will ideally include 4-6 students at least one of who will have a relevant technical background. With the prior approval of the instructors, non-Wharton technical members of the team will be permitted to participate in the class. The course instructors will assist each team in identifying an appropriate mentor to provide focus and to help identify appropriate resources within the life science community.

## LECTURES AND “LUNCH & LEARNS”

Lectures will be held once each week and will deal with specific topics covered in a typical business plan or of significance to a life sciences or digital health venture. Lectures will include presentations by the instructors and experts on specific topics, with discussion facilitated by the instructors. **Since we are inviting experts from the outside, attendance at the lectures will be mandatory and monitored.**

In addition, we are planning to provide background on some core areas such as intellectual property, compliance, etc. through “lunch and learn” programs that will be recorded and then made available to students through Canvas for subsequent viewing. To be respectful to the speakers, we are asking that students attend at least one of these “lunch and learns”.

## GRADING

Students will be evaluated on a combination of the final business plan, investor presentation and class participation, including the interim progress updates on the business plan in the following proportion: Business plan: 40%; Investor presentation: 30%; Class and team participation and interim deliverables: 30%. *Notes: (1) Students will also evaluate their own team members, with input factored into the participation grade. (2) The interim deliverables will count toward the participation grade and will be reviewed and returned with comments but will not be evaluated on a graded scale.* Grading on a pass-fail basis is discouraged and will only be permitted with the consent of the professors.

## ENROLLMENT:

Enrollment will be by application.

## Class Schedule

### Class 1– January 22, 2019– Fundamentals of Entrepreneurship

Based on the ~\$3 trillion that the U.S. spends on health care, the U.S. health care system would rank as the 6 largest economy in the world. Uncontrolled growth is not sustainable, and neither spending nor cost-cutting will help us find our way out of this predicament. We need to find practical, as well as innovative, solutions that help achieve the Triple Aim – increase access, improve quality and lower costs. The entrepreneur’s dilemma in healthcare is to develop those innovative products and services, in a highly regulated industry, within a rapidly shifting environment for customers.

A portion of this class will also be dedicated to a course introduction and to assisting students select group projects.

**Speaker: Eric Heil**

### *Assignment (Deliverable Due Class 2):*

- *Form teams*

### Class 2 – January 29, 2019 – Defining Unmet Need

***Tools: Emersion Research; Market Research, Personal experiences; Market sizing; Discovery Driven Planning***[\*\[1\]\*](#)

Health care entrepreneurs have needs that are different to those of other entrepreneurs; their challenges are unique. There’s regulation, entrenched stakeholders, and human lives at stake. The lead times are longer, change is harder, and capital requirements larger. Entrepreneurs have to play within the system, and that means there are a lot more challenges when it comes to succeeding as a startup in the health care space. Discovery-driven planning is a technique that any manager can use when developing and launching a new venture. As McGrath and MacMillan explained in their original article, “conventional planning operates

on the premise that managers can extrapolate future results from a well-understood and predictable platform of past experience.” But new ventures are uncertain from the start. The assumptions you make at the outset aren’t likely to hold up as new information emerges, requiring substantial adjustments to the plan along the way. offers a lower-risk way to move a product forward in the face of “what is unknown, uncertain, and not yet obvious to the competition” so that firms can “learn as much as possible as cheaply as possible” while pursuing new ventures.

**Speaker:** Jack Stoddard, COO, Amazon/JPM/Berkshire Hathaway Healthcare

***Assignments (Deliverable Due Class 3):***

- *Written Problem and Unmet Need Summary*
- *Initial Product/Solution Description*

**Class 3 – February 5, 2019 – Business Model Innovation and Pricing Strategies – “Follow the Money”**

***Tools: Business Model Canvas; Value Proposition Canvas; Willingness to Pay; Pricing Strategies***

According to the Boston Consulting Group, in the past 50 years, the average business model lifespan has fallen from about 15 years to less than 5. Business model innovation is necessary to respond to a changing world. Entrepreneurs must focus on the business model early and designing a business model requires an approach that allows them to assess if and how a value proposition can be successfully scaled up to a profitable business. This is especially true as healthcare transitions to value-based care. An important current theme in business model innovation is the collection, analysis and utilization of data. In the lecture, we’ll explore how this trend is influencing healthcare as well as how companies are valued.

**Speakers:** Gary Kurtzman

***Assignment (Deliverable Due Class 5):***

- *Complete at least 5 qualitative primary research meetings/calls and provide a written summary of learnings and take-aways*
- *Update Problem and Unmet Need Summary*

**Class 4 – February 19, 2019 – Developing the Solution/Product**

***Tools: Lean Start-up; Rapid prototyping; Evidence of Effect, Product Market Fit;***

“How can we walk away from requirements that we know to be true to pursue something that we think will help?” It turns out that is exactly what product strategy is all about—figuring out the right product is the innovator’s job, not the customer’s job. The customer only knows what he/she thinks they want based on their experience with the current product. The innovator can take into account everything that’s possible, but often must go against what she knows to be true. As a result, innovation requires a combination of knowledge, skill, and courage. Sometimes only the founder has the courage to ignore the data. In this lecture, we will discuss various product design concepts, development methodologies for various types of healthcare solutions, and scaling challenges.

**Speaker: Roy Rosin, Chief Innovation Officer, Penn Medicine**

***Assignment (Deliverable Due Class 5):***

- *Updated Initial Product/Solution Description*
- *Define your product/solution price and business model strategy – How do you get paid and make money?*

## **Class 5 – February 19, 2019 – Branding & Marketing**

***Tools: Brand Promise; Branding Plan***

Should start-ups care about marketing? When should a start-up start thinking about a marketing strategy? Entrepreneurs often struggle to find the balance between marketing and execution or delivery. The goal of this lecture will be to highlight the various ways start-ups leverage marketing to drive awareness, leads, and growth.

**Speakers: TBD – Chief Marketing Officer**

***Assignment (Deliverable Due Class 6):***

- *Define your go-to market strategy – who are decision makers? who buys your product service? How will you reach target audience?*

## **Class 6 – February 26, 2019 – Storytelling and How to Sell**

Your entrepreneurial story is key to unlocking the support of your customers while fueling your own internal purpose and passion. Storytelling in business works. It enhances memory, enthusiasm and commitment in listeners. In this lecture, we’ll break down the various ways to use stories in your pitch and explore where you get the stories from and when to use them.

**Speakers: Lyn Graft, Storytelling for Entrepreneurs**

**March 5, 2019 – NO CLASS SPRING BREAK**

**Class 7 – March 12, 2019 – Culture and Building a Team**

“80% of your company's culture will be defined by its core leaders.”[\[2\]](#) How was your company founded? What is your founders’ story? In this lecture, we’ll work through some of the fun and tough dynamics experienced by founders and founding teams.

**Speakers: Sundeep Bhan, CEO Prognos**

**Class 8 – March 19, 2019 – Expert Pitch Day**

In this lecture, you’ll hear from some establish companies and executives give their company pitch?

**Speakers: A Panel of Start-up Executives including Jay Desai, CEO PatientPing.**

**Class 9 – March 26, 2019 – Interim Pitch Day**

In this lecture, each team will be given the chance to give a brief formal pitch to the class. This class is to provide the teams (and professors) an opportunity to help prioritize various activities and elements of each business plan for the remaining of the semester

**Class 10 – April 2, 2019 – Government Insights**

The US government is the largest customer of healthcare services through the Centers for Medicare and Medicaid Services (CMS) programs. In this lecture, we’ll discuss various ways of working with the government directly. Whether it is navigating the government as a customer (HHS departments, CMS, Defense, etc.) or if it’s navigating the government for funding (SBIR grants, etc.), we’ll discuss how best to do this as a start-up.

**Speakers: TBD**

**Class 11 – April 9, 2019 – Buyers: Hospitals/Providers**

How do I sell my product or service to hospitals? This is a common question for most healthcare entrepreneurs. There is often an established process now at most hospitals and they want to make sure that the products or services brought in house fit a specific need (planning stage) and that in the case of the technologies purchased, all options and all emerging technologies were reviewed prior to purchase (assessment stage) to ensure that they put the hospital money into the right solution not just 'a solution'.<sup>[3]</sup> In this lecture, we'll discuss the top issues and challenges facing hospitals/providers today as well as the various tactics and channels to sell to hospitals/providers.

**Speakers:** Rich Loomis, Chief Informatics Officer, Clinical Solutions, Elsevier

***Assignment (Deliverable Due Class 12):***

- *Interim project progress report/needs assessment/Business Plan Outline*

## **Class 12 – April 16, 2019 – Buyers: Managed Care**

Over the past 20 years, managed care has become the predominant form of health care in most parts of the United States. More than 70 million Americans have been enrolled in HMOs (health maintenance organizations) and almost 90 million have been part of PPOs (preferred provider organizations). How do I sell my product or service to managed care health plans since they control the spending medical costs for members? In this lecture, we'll discuss the top issues and challenges facing health plans today as well as the various tactics and channels to sell to health plans.

**Speakers:** Bill Georges, Chief Strategy Officer, Horizon BCBS NJ

***Assignment (Deliverable Due Class 13):***

- *Wireframe of final investor pitch*

## **Class 13 – April 23, 2019 – The Exit**

***Tools: MagicBox Paradigm; Diligence Processes; Bankers; M&A;***

Why do entrepreneurs sell their business? How does an entrepreneur decide when and how to sell? Before attempting to sell your business, entrepreneurs must invest time in preparing for the process to attractive prospective buyers. When approaching the market, it's important to assess fair market value for the business so that expectations are understood and



aligned before starting the process. In this lecture, we'll discuss the various processes when selling a business.

**Speaker: David Van Sickle, Propeller Health**

**Assignment (Deliverable Due Class 14): Provide a description on how the business would be valued and provide an estimated exit value**

**Class 14 – April 30, 2019 – Final Pitch Day – All Day**

**Business Plan/Investor Presentations – Group Times TBD\*\*\***

*(Note: Reading Days Thursday, May 2 – Friday, May 3; Finals May 6 – 14, 2019)*

[1] <https://hbr.org/2017/02/a-refresher-on-discovery-driven-planning>

[2] <http://firstround.com/review/80-of-Your-Culture-is-Your-Founder/>

[3] <https://www.healthcareguy.com/2011/05/25/guest-article-how-to-sell-your-health-it-products-into-hospitals/>