



**NYU**

**ROBERT F. WAGNER GRADUATE  
SCHOOL OF PUBLIC SERVICE**

# **The Making of a Healthcare Entrepreneur Spring 2021**

## **Instructor Information**

- Cathrin Stickney
- Email: cms20@nyu.edu
- Office Hours: By Appointment

## **Course Information**

- Class Meeting Times: Tuesday, 4:55 p.m. – 6:35 p.m.

## **Class Location: Virtual (Instructions to follow)**

## **Course Prerequisites**

- HPAM-GP 1830 or HPAM-GP 2836, or permission from instructor
- Helpful electives to have taken prior to this course include Corporate Finance and/or Social Impact Investing.
- Students lacking the prerequisite must have relevant experience in healthcare, finance, or marketing, AND permission of the professor

## **Course Description**

Sobering fact: 90% of startups fail!

Whether you are a founder or working for a founder, you are an innovator and an entrepreneur. The Making of a Healthcare Entrepreneur is the course for current and future healthcare innovators interested in learning how to exploit gaps and opportunities in the evolving healthcare industry and launch meaningful, valuable companies as measured by customers and investors. It provides innovators with the essential steps needed to take their idea from concept to reality. By using real cases to demonstrate the various paths taken by others, students will not only understand how to start up a company, but they will gain valuable insights into what it takes to succeed with investors, how to build a customer pipeline, and how to avoid pitfalls that can derail a company.

The healthcare sector is complex. Many entrepreneurs come to their chief idea not by having a full understanding of the sector, but rather by having a specific or personal understanding of, and passion for, the problem they are trying to solve. Moving from a good idea to a real company

requires not only an understanding of the issue, but also an understanding of the targeted customer(s), the product, the pricing model, funding mechanisms, board relations, customer acquisition, and much more.

This is a learning-by-doing course. In the seven weeks, you will take your idea, develop it and pitch it to real venture capitalists.

## Course and Learning Objectives

At the end of the course, students will understand

1. How to create and launch a successful start-up from concept to exit,
2. How to become a successful healthcare entrepreneur,
3. How to acquire customers by creating value in the marketplace,
4. How investors make decisions to fund early stage companies.

*Learning Assessment Table [for HPAM Courses]*

| <b>Program Competency</b>   | <b>Corresponding Course Learning Objective</b> | <b>Corresponding Assignment Title (Memo, Team Paper, Exam, etc.)</b>  | <b>Denote Level of Competency Expected to Achieve via the Assignment (basic = 1, intermediate = 2, advanced = 3)</b> |
|---|--|---|--|
| <b>The ability to hold people accountable to standards of performance and assure organizational, professional and ethical compliance</b>  | #1, #2   | Case studies draw out ethical conflicts.  | 3  |
| <b>The ability to measure, monitor and improve safety, quality, access and system care delivery processes in healthcare organizations</b> | #1   | <ul style="list-style-type: none"> <li>• Case studies</li> <li>• Articles               <ul style="list-style-type: none"> <li>• Online research assignments</li> </ul> </li> </ul> | 2  |
| <b>The ability to draw implications and conclusions to develop an evolving vision that leads to organizational viability</b>              | #3   | <ul style="list-style-type: none"> <li>• Case studies</li> <li>• Class discussion • Business development process</li> </ul>   | 2  |

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|--|---|--|---|
| <b>The ability to communicate and interact productively in a diverse and changing industry, workforce and citizenry</b>                  | #2, #4                                  | <ul style="list-style-type: none"> <li>• Class discussion of issues entrepreneurs face;</li> <li>• Case Study</li> </ul> | 3   |
| <b>The ability to present convincingly to individuals and groups the evidence to support a point of view, position or recommendation</b> | #4                                      | Group discussions and class presentations of work product under development  | 3   |

Level of Competency

[1] = Basic: Foundational understanding of knowledge/skill/competency

[2] = Intermediate: Student demonstrates greater depth of understanding of this Knowledge/skill/competency and can use this ability to analyze a problem

[3] = Advanced: Student demonstrates expertise in this knowledge/skill/competency and can use this ability to evaluate, judge, and synthesize information

## Assessment, Assignments and Evaluation

**Weekly Deliverables – Assignments that aid in learning and completion of Pitch Deck and participation. (25%)**

**Mid-Term Deliverable – Progress Pitch Deck (25%)**

In week 4, students will turn in their work which represents a work-in-progress pitch deck that will later, when complete, submit for the Final Deliverable and final grade.

**Final Deliverable – “Shark Tank” Week (50%)**

Students may work independently or form a team of 2. These entrepreneurs must formulate their concept and prepare an investor pitch deck to present to potential investors during the last week of the term. Innovations may include:

- Aging in place. How can we use innovation to allow seniors to improve their quality of life and live more independently at home?

- Social determinants of health. How can we improve overall health and outcomes by creating innovations that reflect a population’s socio-economic status?
- A low-cost, high-quality solution to a personal area of interest in the healthcare sector—either an improvement on an existing product or service, or an entirely new, game changing idea.
- An independent proposal approved by the professor by Week 2.

Presentations must tell the product story and contain persuasive arguments that compel an investor to invest. Pitches will be 90 seconds plus 2 minutes for Q&A. The final class may be extended by ~30 minutes to accommodate the number of presentations—please plan accordingly. Pitch decks will be handed in for final grade.

## Overview of the Semester

- Week 1
  - Date: March 23
  - Topic: Introduction to Entrepreneurship
- Week 2
  - Date: March 30
  - Topic: Proving the Concept
- Week 3
  - Date: April 6
  - Topic: Going to Market, Part I: Pricing the Product & Assessing the Competition
- Week 4
  - Date: April 13
  - Topic: Going to Market, Part II: Marketing & Sales, Evaluating & Valuing the Company
- Week 5
  - Date: April 20
  - Topic: Scaling the Company, Part I: Build, Buy or Partner, the Product Roadmap
- Week 6
  - Date: April 27
  - Topic: Scaling the Company, Part II: Key Performance Indicators, Talent & Governance; Exiting
- Week 7
  - Date: May 4
  - Topic: “Shark Tank” Week
  - Deliverable: Student Pitch to Investors

## Letter Grades

Letter grades for the entire course will be assigned as follows:

| Letter Grade | Points     |
|--------------|------------|
| A            | 4.0 points |
| A-           | 3.7 points |
| B+           | 3.3 points |
| B            | 3.0 points |
| B-           | 2.7 points |
| C+           | 2.3 points |
| C            | 2.0 points |
| C-           | 1.7 points |
| F            | 0.0 points |

*Student grades will be assigned according to the following criteria:*

- (A) Excellent: Exceptional work for a graduate student. Work at this level is unusually thorough, well-reasoned, creative, methodologically sophisticated, and well written. Work is of exceptional, professional quality.
- (A-) Very good: Very strong work for a graduate student. Work at this level shows signs of creativity, is thorough and well-reasoned, indicates strong understanding of appropriate methodological or analytical approaches, and meets professional standards.
- (B+) Good: Sound work for a graduate student; well-reasoned and thorough, methodologically sound. This is the graduate student grade that indicates the student has fully accomplished the basic objectives of the course.
- (B) Adequate: Competent work for a graduate student even though some weaknesses are evident. Demonstrates competency in the key course objectives but shows some indication that understanding of some important issues is less than complete. Methodological or analytical approaches used are adequate but student has not been thorough or has shown other weaknesses or limitations.
- (B-) Borderline: Weak work for a graduate student; meets the minimal expectations for a graduate student in the course. Understanding of salient issues is somewhat incomplete. Methodological or analytical work performed in the course is minimally adequate. Overall performance, if consistent in graduate courses, would not suffice to sustain graduate status in “good standing.”
- (C/-/+) Deficient: Inadequate work for a graduate student; does not meet the minimal expectations for a graduate student in the course. Work is inadequately developed or flawed by numerous errors and misunderstanding of important issues. Methodological or analytical work performed is weak and fails to demonstrate knowledge or technical competence expected of graduate students.
- (F) Fail: Work fails to meet even minimal expectations for course credit for a graduate student. Performance has been consistently weak in methodology and understanding, with serious limits in many

areas. Weaknesses or limits are pervasive.

## Detailed Course Overview

### WEEK 1: INTRODUCTION TO ENTREPRENEURSHIP

- Introductions, Goals and Course Review
- Lecture/Discussion
  - What makes a great entrepreneur:
    - Do you have what it takes?
    - Diversity in the field, or lack thereof
  - Ideation—critique of business ideas
    - “Think big, stay focused” --*John Chisholm*
    - Students share their concepts and business case
    - Customer need: is it real, unsatisfied?
    - Is there a real advantage that can be exploited?
  - **Introduction to Week 2: Proving the Concept**  
**\*\*\*This introduction to the coming week will help you with the assignments due that week\*\*\***

Readings Due (found here or on NYU Classes course website)

1. CASE: [What Makes Entrepreneurs Entrepreneurial?](#) Darden Publishing, University of Virginia, 2015 [Open Source]
2. CASE: [The Innovative Power of Criticism](#) Roberto Verganti, HBR, 2016 [HBS Coursepack]

Recommended Readings (found here or on NYU Classes course website)

[Why So Many New Tech Companies Are Getting into Health Care](#), HBS, 2014, Bob Kocher, MD, Bryan Roberts [HBS Coursepack]

[2020 Midyear Digital Health Market Update Unprecedented funding in an unprecedented time](#). Nina Chiu, 2020 [Open Source]

### Discussion Questions/Assignments—Week 1

- Students bring to the first class a problem in the healthcare industry that needs a solution enabled by technology or a new approach. Your solution can be new, or it can be an improvement on an existing solution. Be prepared to present your issues and ideas for the new approach or tech solution—e.g., using Software as a Service (SaaS) or Platform as a Service (PaaS) as the engineering foundation. Create a working name for your company and answer these questions:
  - What is your passion or personal goal for starting a company?
  - What is the unmet need in the market? Frame the problem.
  - What is the market advantage your idea will capitalize on?
  - Who will benefit?

In addition, complete the following chart for your idea and bring it to class:

- [The Business Model—Who Will Benefit?](#)

## WEEK 2: PROVING THE CONCEPT

- Lecture/Discussion
  - Getting to the MVP (Minimum Viable Product)
    - developing and engineering the product
  - Testing your idea on the market
    - gathering proof points
  - Getting your “house” in order
    - communicating the value proposition
    - selecting the business model
    - regulation—the case of Theranos
  - **Introduction to Week 3: GOING TO MARKET, Part 1: Pricing the Product & the Competitive Assessment.**

Readings Due (found here or on NYU Classes course website)

1. **CASE: Business Model Analysis for Entrepreneurs**, HBS, 2014, Thomas Eisenmann [HBS Coursepack]

Note: this next case was written prior to discovering the fraud associated with this case. See how writers of this Case didn't really delve beyond the surface of what they were being told.

2. **CASE: [Theranos: Exploring the Value of Early Detection of Diseases](#)**, MDI, 2015 [\$7.95] Sunanda Nayak, Dr Jyotsna Bhatmagar [For Purchase]

Then the s\*\*\* hit the fan. Recommended Readings (found here or on NYU Classes course website) [All open source]

1. [Bill Maris: Here's why Google Ventures didn't invest in Theranos](#), Jillian D'Onofro, Business Insider, October 2015
2. [Theranos Doomsday Clock: A full timeline of its rise and fall \(Updated\)](#), Med City News, 2016
3. [Theranos Founder Elizabeth Holmes Indicted on Fraud Charges](#), Reed Abelson, The New York Times, June 2018
4. [Carreyrou at TPRM: Theranos warning signs were there, but partners failed to spot them](#), Aly McDevitt, September 2020

### Discussion Questions/Assignments—Week 2

Now that you've decided that you have just the right solution for an unmet market need, focus on how you will test and prove the concept. The ability to communicate the concept to others is essential. 1) Write the mission, vision and value proposition for the selected company (no more than one sentence each); 2) determine the business model. 3) Reflect on what, if any, regulation applies to the idea. 4) Find three subject matter experts and test the idea out on them. In class, be prepared to defend and discuss how you will get to your MVP (Minimum Viable Product). Consider partnering with one or more like-minded, passionate co-founders or innovators.

## WEEK 3: GOING TO THE MARKET, PART I: PRICING THE PRODUCT & ASSESSING THE COMPETITION

- Lecture/Discussion
  - Price your product
    - Subscription
    - Freemium—Premium
    - Per User Per Month
    - PMPM/PMPY
  - Debate the pro's and con's; conclude with pricing strategy [breakout groups]
  - Competition
    - Competitor or Collaborator or Customer—which is it?
    - Differentiation: Improvements or Unique Features?
    - Are you disrupting or disintermediating?
    - Recognizing your advantages [breakout groups]
  - **Introduction to Week 4: Going to the Market, Part II: Marketing & Sales; Evaluating and Valuing the Company**

Readings Due (found here or on NYU Classes course website) — [All open source] 1. **CASE:** [Teladoc](#), NASDAQ, 2015—Read the company description

- a. [Teladoc loses \\$1.5M Highmark contract, sparks debate on pricing, utilization of telemedicine](#), HIMSS, Jonah Comstock, 2015
- b. [Teladoc: Why the biggest and most successful telemedicine company ultimately will lose](#), HC Watcher, HBS, October 2015

Recommended Readings (found here or on NYU Classes course website) — [Open source] 1. [The Top Ten SaaS Pricing Strategies, Trevor Hatfield, October 2015](#)

### Discussion Questions/Assignments—Week 3

You've tested your product and now have to decide on how to market and sell it while you continue to refine it. To do that, you need to 1) determine the pricing strategy; be prepared to debate two different pricing approaches. Be prepared to defend and discuss how the pros and cons of both. 2) Complete a comparison of your closest competitors in the market where the Y axis represents unique features or technology of the product and the x-axis represents your company and your competitors. Don't forget to include your company!

## WEEK 4: GOING TO MARKET, PART II: MARKETING & SALES, EVALUATING & VALUING THE COMPANY

- Lecture/Discussion
  - Financing your business:
    - Venture Capital & Private Equity
    - Bootstrapping
    - Seed, Series A, B...
    - Angel Investors/Angel List
    - Convertible Notes
    - Incubators, Accelerators



- Marketing & Sales
  - Establishing your repeatable sales process
  - Frictionless sales so you can “land and expand”
  - Getting to monthly recurring revenue (MRR)
- **Introduction to Week 5: Scaling the Company**

Readings Due (found here or on NYU Classes course website)

1. **ARTICLE: The Go-to-Market Approach Startups Need to Adopt**, HBR, 2016, Ron Ashkenas and Patrick Finn [HBS Coursepack]
2. **ARTICLE: How Sales Complexity impacts your Startup’s Viability** by David Skok [Open Source]
3. **CASE: How Venture Capitalists Evaluate Potential Venture Opportunities**, HBS, 2004, Michael J. Roberts and Lauren Barley—*Yes, I know this is old; but it is still just as relevant today!* [HBS Coursepack]
4. **CASE: The Overvaluation Trap**, HBR, 2015, Roger L. Martin and Alison Kemper [HBS Coursepack]

Recommended Readings (found here or on NYU Classes course website)

1. [Transcript: Vinod Khosla at Post Seed 2015](#) Silicon Valley investor talks VC strategies with Semil Shah of Haystack [Open Source]
2. [An Emerging Trend in Early-Stage Company Financing?](#) – After Years of Growing Ubiquity of Convertible Notes, a Return to Priced Equity Rounds, 2016, David Sorin, Jared Sorin [Open Source]

#### Discussion Questions/Assignments—Week 4

Now it’s time to see your company through the lens of an investor—a view you will retain as long as you are in business. First, you will need to add to your value proposition a path to a repeatable sales process and recurring revenue. 1) Bring to class a) a customer pipeline using the Pipeline Tool provided by the professor; and b) your repeatable sales process. 2) Wearing a VC hat, students will be asked to pare up to evaluate each other’s company based on a) the value proposition, b) the regulatory “maze” required to bring the product to market, c) the pricing strategy, and d) the competitive landscape. These 4 components should be presented in slide format, no more than 5 slides. [Note: **this mini-deck is your mid-term project** and will, after refinement, be the basis for the final project]

## WEEK 5: SCALING THE COMPANY, PART I: BUILD, BUY OR PARTNER, THE PRODUCT ROADMAP

- Lecture/Discussion
  - Build, Buy or Integrate (e.g., APIs)
  - Potential of the product; the wow factor for customers and investors
  - Land and Expand
    - XYZ business growth
      - New customers
      - Upselling existing customers
      - Price adjustments
  - Introduction to Week 6: Scaling the Company, Part II: Key Performance Indicators, Talent & Governance; Exiting

Readings Due (found here or on NYU Classes course website):

1. **CASE: athenahealth's *More Disruption Please* Program**, HBS, 2015, Robert Higgins and Erin Trimble [HBS Coursepack]

Recommended Readings (found here or on NYU Classes course website):

1. [Is athenahealth CEO Jonathan Bush in a bubble?](#) Fortune, 2014 by Jen Wieczner [Open Source]
2. [How athenahealth is trying to be the Amazon of health care](#), Yahoo Finance, July 2016, Seana Smith [Open Source]
3. [The Blunt Truth About Athenahealth's Jonathan Bush Fortune](#), Clifton Leaf June 2018 [Open Source/Partial article/video]
4. [How Unicorns Grow](#), HBR, 2016, Idea Watch [HBS Coursepack]

### Discussion Questions/Assignments—Week 5

If you are among the 40% of entrepreneurs who make it to a priced investment round, you are on the road, albeit an uphill road, to success. You will need to think about how you use the trust and money invested in your business to grow, and grow rapidly. Not every company can or will become a unicorn, but much can be learned from them—good and bad. For this week, students will 1) create a product roadmap, not at the granular level (which you'll eventually want to do) but showing a quarterly view into how you will take your initial MVP and expand it through capabilities and features; and 2) consider how partnerships or integration with other applications might allow you to grow quicker. Know your core competencies and don't reinvent the wheel.

## WEEK 6: SCALING THE COMPANY, PART II: KEY PERFORMANCE INDICATORS, TALENT & GOVERNANCE; EXITING

- Case Discussion--Zenefits
  - Execution
  - Lean and mean operations
  - Life style business or Unicorn?
  - IPO or bust? Exit strategies
- Review Shark Week expectations and logistics

Readings Due (found here or on NYU Classes course website)

1. **CASE: How Serial Entrepreneurs Build and Manage a Board of Directors in a Venture Backed Start Up**, HBS 2008, Michael Roberts, William A. Sahlman, and Sasha Novakovich [HBS Coursepack]
2. **CASE: Zenefits: “the board has a duty to (provide) oversight and to minimize risk”** a. [Zenefits Was the Perfect Startup. Then It Self-Disrupted](#) Bloomberg BusinessWeek, 2016, Claire Suddath and Eric Newcomer [Open Source]  
b. [Zenefits Scandal Highlights Perils of Hypergrowth at Start-Ups](#) The New York Times, 2016 Farhad Manjoo [Open Source]  
c. Zenefits Board of Directors (A) HBS, 2018, Lynn Sharp Paine, Will Hurwitz [HBS Coursepack]

3. **CASE: Scaling a Startup: People and Organizational Issues**, [HBS](#), 2014, Thomas Eisenmann and Alison Berkley Wagonfeld [HBS Coursepack]

Recommended Readings (found here or on NYU Classes course website):

- 2 [16 Startup Metrics](#), 2015, by Jeff Jordan, Anu Hariharan, Frank Chen, and Preethi Kasireddy, Andreessen Horowitz [Open Source]
- 3 [Start-Ups That Last](#), [HBR](#), 2016 Ranjay Gulati and Alicia DeSantola [HBS Coursepack]

### **Discussion Questions/Assignments—Week 6**

You can't manage what you don't measure; or, if you didn't measure it, it didn't happen. Either way, measurement is key to your success. Whether you are measuring results of your products effectiveness (proof points) or KPIs (Key Performance Indicators), metrics are important markers of your success—not only for you as the Founder (and CEO) or company innovator, but for your customers and investors. Students will 1) create a set of 4 financial KPI's that are particularly relevant to the very early stage of the start-up and give consideration to an additional 6 KPI's (3 financial and 3 non-financial) that will be relevant as the company grows; and 2) decide what skills you will need for your advisory board and identify candidates you will pursue to join your board; consider how you will compensate them for their time.

### **WEEK 7: “SHARK TANK” WEEK**

- Students Pitch to Investors
- Instructions will be delivered in Week 6.

### **NYU Classes**

All announcements, resources, and assignments will be delivered through the NYU Classes site. I may modify assignments, due dates, and other aspects of the course as we go through the term with advance notice provided as soon as possible through the course website.

### **Academic Integrity**

Academic integrity is a vital component of Wagner and NYU. All students enrolled in this class are required to read and abide by [Wagner's Academic Code](#). All Wagner students have already read and signed the [Wagner Academic Oath](#). Plagiarism of any form will not be tolerated and students in this class are expected to report violations to me. If any student in this class is unsure about what is expected of you and how to abide by the academic code, you should consult with me.

### **Henry and Lucy Moses Center for Students with Disabilities at NYU**

Academic accommodations are available for students with disabilities. Please visit the [Moses Center for Students with Disabilities \(CSD\) website](#) and click on the Reasonable Accommodations and How to Register tab or call or email CSD at (212-998-4980 or [mosescsd@nyu.edu](mailto:mosescsd@nyu.edu)) for information. Students who are requesting academic accommodations are strongly advised to reach out to the Moses Center as early as possible in the semester for assistance.

### **NYU's Calendar Policy on Religious Holidays**

[NYU's Calendar Policy on Religious Holidays](#) states that members of any religious group may, without penalty, absent themselves from classes when required in compliance with their religious

obligations. Please notify me in advance of religious holidays that might coincide with exams to schedule mutually acceptable alternatives.

## **HBS Coursepack**

Use this link to go to coursepack. Students may buy all or individually as you may already have some of the cases/articles