

Course Number: MGT 626

Competitive Analysis of Industries: The Value Chain in Healthcare

Session #/Year: Fall 2017

Faculty: George Telthorst

Faculty Contact Details

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- Zoom Meeting Personal ID for Course: 7011635639
- Canvas Collaboration and Learning Environment URL: <https://canvas.iu.edu>

Course Description:

This course will present an overview of the economic foundations of the life sciences and healthcare value chain. In this course we will explain the idea of a business value chain with attention to underlying economic principles, and then apply those concepts to a specific segment of the life sciences or healthcare industries. It is designed to provide graduate students from a variety of business and non-business backgrounds with a solid introduction to the economic foundations of life sciences, with a special emphasis on healthcare. This course is intended to serve as a starting point for students to develop an inter-disciplinary discussion between business, life sciences and healthcare services industries.

Student Learning Outcomes:

After completing this course, students working as individuals and in teams will be able

- To understand the core concept of value chain and be able to apply the concept and related tools to specific examples in the life sciences and/or healthcare industries.
- To examine a range of value chain issues in specific healthcare-related industries in order to broaden the understanding of each of these industries including the important issues/trends being faced in these industries.
- To explore the role of “disruptive innovation” as a vehicle for improving the current configuration of the healthcare value chain.
- To apply available business research tools and value chain concepts to complete a detailed healthcare industry analysis with a specific focus on several companies within that industry, as well as the potential for disruptive innovation.
- To demonstrate mastery of value chain concepts and tools as they apply to health care related industries.

Teaching Strategy and Rationale:

In this class, the goal is to use the online course environment to encourage and support a dialogue between students from a variety of backgrounds as we explore the financial underpinnings of the life sciences and healthcare value chain. One important element of the course design is the application of classic value chain concepts and tools to contemporary healthcare concerns. This provides a common body of knowledge and ideas which will be used to frame subsequent discussions for the class. A second element of the course design will employ asynchronous discussion techniques that will require students to not only read but engage the material and to present unique ideas to their peers and professors. A third teaching strategy in the class is the use of a regular, synchronous online meeting to provide students with an opportunity to “connect” with each other and the faculty and to ask relevant questions that may not be easily answered through asynchronous activities. We may also use these sessions to introduce students to subject matter experts in the specific areas being covered during the session. All synchronous sessions will be recorded for students unable to attend the actual session. Finally, this course will focus on developing students’ ability to apply these analytical principles to a specific industry. The final project will require just such a forward looking analysis and will emphasize the relevance of the course concepts to real business issues.

Assessment:

Final grades in the course are assigned based on performance using the following weighting scheme:

- **Discussion Forums (20%)**. This will be a principal means of class discussion, and will therefore count for a significant portion of your score. There are two components to this score. The first is participation in the forums and class discussions (i.e. did the student make contributions, read other students’ work and make relevant, appropriate professional replies), the second is the quality of the participation (i.e. were the contributions insightful, did they demonstrate a real synthesis of material, did they add a valuable perspective to the class discussion, etc.). You will work with your student team (Called “**Forum**” in the schedule below.) On Canvas, look on the Forum Topic pages for what to think through as you answer the discussion questions posed.
- **Value Chain Analysis Project (30%)**. Student teams will be asked to identify a healthcare industry segment, and to use business research tools to (1) create a value chain assessment of that industry, with an emphasis on profit pools, (2) to identify three firms within that industry and provide an assessment of the relative positions (i.e. strengths, weaknesses, etc.) of those firms within the industry, and (3) to provide a forward-looking assessment of a company with an emphasis on the most important problem/challenge facing the industry and the potential role of “innovative disruption” to address that issue. There are several components to this project which are scheduled for delivery throughout the course and described in the schedule below. (Called “**Project**” in the schedule below.)
- **Zoom Sessions (20%)**. Zoom is a synchronous online meeting tool used every week during the course to summarize, engage in discussion and take time to explore any questions or issues that students may have. We will also use the Zoom meeting to introduce upcoming material. At the beginning of the course, students will be given a poll to determine the most convenient meeting time for the sessions. Each session will be recorded so those unable to attend at the scheduled time will be able to review it. If unable to attend (or actively participate) in the session, students can still receive credit for the session by reviewing the recording and writing a brief (one page) summary of the session. This alternative write-up must be submitted by the end of the last day of the module during which the session occurred (Usually Sunday evening, unless otherwise noted in the course calendar.)

- **Final Exam (30%).** The final exam for this course can be taken anytime during the last module. Students will have two hours to take the exam once downloaded, while having the option to select any two hours during the week in which to take the exam. The exam is exclusively an individual deliverable.

Course Policies:

Academic Misconduct. There are many forms of academic misconduct, and all are taken seriously in this class. The expectation of the faculty is that each student will conduct themselves in a way that in spirit and detail is congruent with the Kelley Student Honor Code. For details see the following:

<http://www.kelley.iu.edu/ICWEB/Faculty%20Corner/Administrative%20Support/page1402.html>).

Faculty leading this course expects that EVERY CONTRIBUTION made by a student or team is original work (or that the origin of the work is clearly cited.) This includes:

1. **Team Work.** In the case of group assignments, the work submitted is to be that of your team ONLY. Your team is not to receive any information on an assignment from members of other teams. Likewise, you are not to provide information to members of other teams. If your team's assignment is judged to be highly similar to that of another team, both teams will be held equally culpable and will be dealt with accordingly. Penalties range from a "0" on the assignment with notification of the chair of the program in which the student is enrolled, to an F in the course and notification of the appropriate school and university administrators.
2. **Individual Work.** Individual assignments are to be done completely on your own. Unless written directions indicate otherwise, you are not to accept information or materials from anyone and you are not to provide information or materials to anyone. If your assignment is judged to be highly similar to that of another student, both students will be held culpable. In today's world it is very easy to search the web and cut and paste responses to a wide range of deliverables (from forums to final papers). Such cutting and pasting, without proper attribution to the source, is another example of academic misconduct. If any submission is judged to be highly similar to that of an unreferenced external source, the submitting student will be held culpable of academic misconduct. Penalties are the same as above.
3. **Sharing Deliverable Content Information.** You are not allowed to share content information or materials about a deliverable from a class session with anyone who has not already submitted the deliverable (e.g., no sharing of answers to homework problems; no sharing of information about case discussions, etc.). Conversely, if you have not yet submitted a deliverable or attended a session, you are not to request/receive information or materials about that session from students who have already completed. Both requesting and providing this kind of assistance are acts of academic misconduct. Penalties are the same as above.

4. **Deliverable Affirmation.** Before you or your team turns in a write-up or a paper, you must affix a “deliverable affirmation.” (usually on the cover page or at the end of the document.) This affirmation states the following:

“I have neither given nor received unauthorized aid on this assignment.”

The key is honesty in all areas of your behavior in this course—whether it is a forum post (posting something as your original work that was not), a Zoom session make-up (writing as though you reviewed a session when you did not), a paper (not using original work or failing to cite sources), or an exam (using assistance). The list here should not be considered exhaustive—so please speak to the faculty if you have any questions at all.

Late Work: Submitting work on time is very important for the successful completion of this course. Please make every effort to submit work by the due date shown in the calendar below. In general, submission mechanisms will be closed after the due date. Late submission is rare and only possible through prior arrangement with the instructor. All late work is subject to a penalty.

Grades: We will follow the recommended grade distribution for graduate classes adopted by the Kelley School of Business faculty. That distribution of final grades is shown below.

MBA Grade Distribution

GRADE	MEANING	PERCENT OF CLASS
A	Distinguished Scholar	10-15%
A-	Excellent	25-35%
B+/B/B-	High Pass/Pass	50%*
C+/C/C-	Weak Performance	As needed
F	Failure	As needed

***In the most likely scenario (15% A, 35% A-) the third category will contain 50% of the class. This means that median class score is an important performance line for assessing A/A- versus B+/B.**

Formal Feedback: Grades will be posted throughout the course and formal feedback will be provided at the end. At ANY point in time if you are not confident about your performance, or want to discuss any issues or concerns, please reach out by email or phone. We will schedule a time to speak at length about your concerns at the first available opportunity.

TENATIVE COURSE CALENDAR: (See the Online Course calendar for specific due dates. The online calendar is the official source of course dates.)

MODULE	DESCRIPTION	READINGS/DELIVERABLES
SECTION 1: AN INTRODUCTION TO THE VALUE CHAIN PERSPECTIVE		
Module 1 during the opening in-residence week course	<u>Making the Connections: Modern Healthcare as a Value Chain</u> <i>We will open the class with a face-to-face session together to discuss the connections that exist in the modern healthcare system, and how those connections can be conceptualized as a value network. We will also form Discussion/Project Teams and survey students to determine the preferred time for weekly Connect sessions.</i>	Reading: Read AFTER FIRST SESSION <ul style="list-style-type: none"> • Introduction, and chapter 1, “Scoping the Problem,” in <i>Redefining Healthcare: Creating Value-Based Competition on Results. (Online)</i> • “Why is Innovation in Health Care So Hard?” (HBR – Chapter 6, pp. 105-132) • Health Care Needs Real Competition HBR article (online)
Module 2 09/10/17 - 9/16/17	<u>Course Introduction: Understanding the Value Chain Perspective</u> <i>In this module, students are introduced to the classic ideas of competitive advantage and value chain analysis, which will be used as the starting point for our analysis of a range of healthcare related industries.</i> <i>This unit will also include an introduction to IU Library resources.</i>	Reading: <ul style="list-style-type: none"> • “The Role of Disruptive Technology and Business Model Innovation in Making Products and Services Affordable and Accessible” (Christensen – Introduction and Chapter 1, pp. 1-36.) • “Profit Pools: A Fresh Look at Strategy,” (Online) • Apple Smartphone Profits <i>WSJ</i> article (Online) Suggested/Supplemental Reading: <ul style="list-style-type: none"> • “Competitive Strategy: The Core Concepts,” chapter 1 in <i>Competitive Advantage: Creating and Sustaining Superior Performance (Online—optional reading)</i> • Bain_Brief_Healthcare_2020 (Online) Deliverables: <ul style="list-style-type: none"> • Zoom Session 1: 9/12 8 pm Eastern time • Forum Topic 1 (individual): Introductions • Login at https://zoom.us/ and then enter the personal Id number for the course: 7011635639
Module 3 9/17/17– 9/23/17	<u>Innovation, Disruption, and How the Healthcare Value Chain will Change</u> <i>In this module students will be introduced to two models of innovative disruption and will be asked to evaluate the potential impact these models may have on changing the face of the health care value chain</i>	Reading: <ul style="list-style-type: none"> • “The Technological Enablers of Disruption,” (Christensen – Chapter 2, pp. 37-72.) • “Fixing Health Care on the Front Lines,” (HBR – Chapter 3, pp. 29-48.) Suggested/Supplemental Reading: <ul style="list-style-type: none"> • Deloitte Top 10 Health Care Innovations article (online) Deliverables: <ul style="list-style-type: none"> • Zoom Session 2: 9/19 8 pm Eastern time

		<ul style="list-style-type: none"> • Forum Topic 2 (group): What are the limits to the “revolution from within” argument from the second reading for this week? <i>On Canvas, look on the Forum Topic pages for what to think through as you answer the discussion question.</i> •
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MODULE	DESCRIPTION	READINGS/DELIVERABLES
SECTION 2: A VALUE CHAIN ANALYSIS OF KEY HEALTHCARE SECTORS		
Module 4 9/24/17- 9/30/17	<p><u>Hospitals and Health Care Systems</u></p> <p><i>This module focuses on hospitals and health care systems. We will consider how Christensen’s model “fits” with some recent and relevant examples of front line innovation in this sector.</i></p> <p><i>Consider adding WSJ article re clinics.</i></p>	<p>Reading:</p> <ul style="list-style-type: none"> • “Disrupting the Hospital Business Model,” (Christensen – Chapter 3, pp. 73-110.) • “Fixing Health Care from the Inside, Today,” (HBR – Chapter 4, pp. 49-90.) • “Kaiser Permanente’s Innovation on the Front Lines,” (HBR – Chapter 5, pp. 91-104.) <p>Suggested/Supplemental Reading:</p> <ul style="list-style-type: none"> • Prescription for the Future <i>Economist</i> article (Online) • Mayo’s Tricky Task <i>WSJ</i> article (Online) <p>Deliverables:</p> <ul style="list-style-type: none"> • Zoom Session 3: 9/26 8 pm Eastern time • Topic 3 (group): Is the Kaiser Permanente model a viable solution to healthcare reform? How does that model connect with Christensen’s model of disruption? <i>On Canvas, look on the Forum Topic pages for what to think through as you answer the discussion questions.</i> • Project Part I: Identify your Industry section, and the three firms to be considered in your analysis.
Module 5 10/1/17- 10/7/17	<p><u>Physicians and Treatment Processes</u></p> <p><i>In this module we will consider “The Providers” and drill down further into the practice and process of health care delivery. Does this approach work “with”, “against” or “in spite of” the value chain understanding of health care as a system?</i></p>	<p>Reading:</p> <ul style="list-style-type: none"> • “Disrupting the Business Model of the Physician’s Practice,” (Christensen – Chapter 4, pp. 111-148.) • “Disruptive solutions for the Care of Chronic Disease,” (Christensen – Chapter 5, pp. 149-182.) • “Turning Doctor’s Into Leaders,” (HBR – Chapter 1, pp. 1-22.) • “Health Care Needs a New Kind of Hero: An Interview with Atul Gawande,” (HBR – Chapter 2, pp. 23-28.) <p>Suggested/Supplemental Reading:</p> <ul style="list-style-type: none"> • Doctor’s Office of the Future <i>USA Today</i> article (Online) • Hightech Help for the Freelance Physician <i>WSJ</i> Column (Online)

		<p>Deliverables:</p> <ul style="list-style-type: none"> • Zoom Session 4: 10/3 8 pm Eastern time
<p>Module 6</p> <p>10/8/17– 10/14/17</p>	<p><u>The Pharmaceutical/Biotech Sector(s)</u></p> <p><i>In this module we introduce the pharmaceutical sector, beginning with key terms, market fundamentals, and key players. We conclude the module by asking students to reflect on the pharma and biotech “value proposition” and assess the strength of that argument.</i></p>	<p>Reading:</p> <ul style="list-style-type: none"> • “The future of the Pharmaceutical Industry,” (Christensen – Chapter 8, pp. 261-310.) • “Rebuilding the R&D Engine in Big Pharma,” (HBR – pp. 179-202.) • On Target <i>Economist</i> article (Online) <p>Suggested/Supplemental Reading:</p> <ul style="list-style-type: none"> • R&D Costs Growing – Evaluate Pharma Report <i>Fierce Biotech</i> article (Online) • Growing Pains <i>Economist</i> article (Online) • Price War Squeezes Generic-Drug Firms <i>WSJ</i> article (Online) <p>Deliverables:</p> <ul style="list-style-type: none"> • Zoom Session 5: 10/10 8 pm Eastern time • Forum Topic 4 (group): In what ways does Christensen’s model help explain the last several years in the pharma/biotech world? <i>On Canvas, look on the Forum Topic pages for what to think through as you answer the discussion question.</i>
<p>Module 7</p> <p>10/15/17– 10/21/17</p>	<p><u>Medical Device Sector</u></p> <p><i>In this module, the medical device sector will be the area of focus with some historic background as well as a review of the unique characteristics of medical devices.</i></p>	<p>Reading:</p> <ul style="list-style-type: none"> • “Future Directions for Medical Devices and Diagnostic Equipment,” (Christensen – Chapter 9, pp. 311-336.) • Silicon Valley Trails in Medical Tech <i>WSJ</i> article (Online) <p>Suggested/Supplemental Reading</p> <ul style="list-style-type: none"> • Sales People in Surgery <i>Herald Times</i> article (Online) • Things are Looking App <i>Economist</i> article (Online) • All Sewn Up <i>Economist</i> article (Online) • A Solar Panel’s Inside Job <i>WSJ</i> column (Online) <p>Deliverables:</p> <ul style="list-style-type: none"> • Zoom Session 6: 10/17 8 pm Eastern time • Project Part II: Identify your data sources for the final project and the firm your team is developing recommendations for.
MODULE	DESCRIPTION	READINGS/DELIVERABLES
<p>Module 8</p> <p>10/22/17– 10/28/17</p>	<p><u>Who Pays and Who Sets the Rules?</u></p> <p><i>In this module we will discuss two very different healthcare sectors: the Payers, and the Regulators.</i></p>	<p>Reading:</p> <ul style="list-style-type: none"> • “Disrupting the Reimbursement System,” (Christensen – Chapter 7, pp. 221-260.) • “Regulatory Reform and the Disruption of Health Care,” (Christensen – Chapter 11, pp. 369-418.)

		<p>Suggested/Supplemental Reading</p> <ul style="list-style-type: none"> • Punished for Finding Problems <i>Herald Times</i> article (Online) • Hospital Firm Retreats as Insurer <i>WSJ</i> article <p>Deliverables:</p> <ul style="list-style-type: none"> • Zoom Session 7: 10/25 8 pm Eastern time
SECTION 3: IMPORTANT TRENDS IN EMERGING HEALTHCARE VALUE NETWORKS		
<p>Module 9</p> <p>10/29/17-11/4/17</p>	<p><u>The Future of Healthcare</u></p> <p><i>In this module we will consider the most recent version of health care reform in the United States, and discuss where things could potentially go. In the discussion forum, students will evaluate what is most likely to be the source of “disruptive innovation”.</i></p>	<p>Reading:</p> <ul style="list-style-type: none"> • “Saving Money, Saving Lives,” (HBR – Chapter 8, pp. 161-178.) • Why Disruptive Innovation is Still Healthcare’s Silver Bullet <i>CCI</i> article (Online) • Disruptive Innovation: Life After Clayton Christensen’s “Innovator’s Prescription” <i>Medtech Boston</i> article (Online) <p>Suggested/Supplemental Reading</p> <ul style="list-style-type: none"> • Guide to the Future of Medicine <i>Qmed Chart</i> (Online) • From Lending Tree to Theranos, the Limits of Disruption <i>WSJ</i> article (Online) • Disrupting Mr. Disrupter <i>Economist</i> article (Online) <p>Deliverables:</p> <ul style="list-style-type: none"> • Zoom Session 8: 11/1 8 pm Eastern time • Forum Topic 5 (group): Considering all the sectors covered in the course, where do you see the greatest potential for “disruptive innovation”? <i>On Canvas, look on the Forum Topic pages for what to think through as you answer the discussion question.</i>
<p>Module 10</p> <p>11/5/17-11/11/17</p>	<p><u>Project Presentations</u></p> <p><i>In this module, teams will present their analysis and recommendations during an extended Zoom Session.</i></p>	<p>Reading:</p> <ul style="list-style-type: none"> • None <p>Deliverables</p> <ul style="list-style-type: none"> • Zoom Session 9: 11/8 8 pm Eastern time • Project Part III: Final Presentations • Peer Feedback Form (by EOD 11/18/2017)
<p>Module 11</p> <p>11/12/17-11/18/17</p>	<p><u>Course Wrap-up: Final Exam</u></p> <p><i>In this module, each student will take a final exam (sometime during the last week of the course.)</i></p>	<p>Reading:</p> <ul style="list-style-type: none"> • None <p>Deliverables:</p> <ul style="list-style-type: none"> • Exam: (Available 8:00 am 11/12/17 Two hour time limit. Due EOD 11/18/2017.)
FINAL GRADES RELEASED (No later than EOD 12/1/2017)		

Summary of Deliverables by Module

Module	Zoom Meeting	Discussion Forum	Project Work	Exam
01.				
02.	☆	☆		
03.	☆	☆		
04.	☆	☆	☆	
05.	☆			
06.	☆	☆		
07.	☆		☆	
08.	☆			
09.	☆	☆		
10.	☆		☆	
11.				☆
FINAL ASSESSMENT				

Course Materials:

Required Textbooks:

- Fixing Healthcare from Inside and Out. Harvard Business Review Collection. Harvard Business School Press, 2011. ISBN 1422162583. Referred to in the syllabus as “HBR”.
- The Innovator’s Prescription: A Disruptive Solution for Health Care. Clayton M. Christensen, Jerome H. Gorrssman, and Jason Hwang. McGraw-Hill, 2009. ISBN 0071592086. Referred to in the syllabus as “Christensen” in the syllabus.

NOTE: These books can be purchased new or used from many online sources. They are both also available in hardcopy or electronic formats for a variety of readers.

Required Readings:

- Introduction, and chapter 1, “Scoping the Problem,” in Redefining Healthcare: Creating Value-Based Competition on Results. Michael E. Porter and Elizabeth Olmsted Teisberg. Harvard Business School Press, 2004. Pages 1-32.
- “Health Care Needs Real Competition” by Leemore S. Dafney and Thomas H. Lee, MD, Harvard Business Review, December 2016
- “Profit Pools: A Fresh Look at Strategy,” by Gadiesh, Orit, Gilbert, James L., Harvard Business Review, May/June 98, Vol. 76, Issue 3

- “Apple Gets 92% of Smartphone Profit” by Ryan Knutson, Jonathan Cheng and Eva Dou, Wall Street Journal, July 13, 2015
- “On Target”, The Economist, June 11, 2016
- “Silicon Valley Trails in Medical Tech”, by Michael S. Malone, Wall Street Journal, July 24, 2017
- “Why Disruptive Innovation is Still Healthcare’s Silver Bullet” by Michael Devonas, Clayton Christensen Institute for Disruptive Innovation, November 20, 2015
- “Disruptive Innovation: Life After Clayton Christensen’s ‘Innovator’s Prescription’” by Jessica Shanahan, Medtech Boston, November 4, 2014

Further Reading Suggestions (optional):

- Redefining Healthcare: Creating Value-Based Competition on Results. Michael E. Porter and Elizabeth Olmsted Teisberg. Harvard Business School Press, 2006. ISBN: 1591397782. Referred to in the syllabus as “Porter”.
- The Business of Healthcare Innovation. Lawton R. Burns (ed). Cambridge University Press, 2012. ISBN: 1107607779.
- The Health Care Value Chain. Lawton R. Burns. Jossey-Bass, 2002. ISBN: 0-7879-6021-7.
- “Competitive Strategy: The Core Concepts,” chapter 1 in Competitive Advantage: Creating and Sustaining Superior Performance. Michael E. Porter. The Free Press, 1985. ISBN 06983750.
- Healthcare 2020. George Eliades, Michael Retterath, Norbert Hueltenschmidt and Karan Singh. Bain and Company, 2012.
- Deloitte Top 10 Health Care Innovations by Bill Copeland, Michael Raynor and Sonal Shah, Deloitte Healthcare Solutions, 2016.
- “Prescription for the Future”, The Economist, April 8, 2017.
- “Mayo’s Tricky Task: Revamp What Works”, Wall Street Journal, June 3, 2017.
- “High-Tech Help for the Family Physician”, by Alyssa Finley, Wall Street Journal, March 25, 2017.
- “The Doctor’s Office of the Future”, by Jon Swartz, USA Today, June 17, 2017.
- “R&D Costs Growing, Roche Shines and Novo High for ROI: It’s the EP Report”, by Ben Adams, Fierce Biotech, June 20, 2017.
- “Growing Pains”, The Economist, September 7, 2016.
- “Price War Squeezes Generic-Drug Firms” by Joseph Walker, Wall Street Journal, August 5-6, 2017
- “Sales People in Surgery”, by Sandra Boodman, Kaiser Health News, reprinted in The Bloomington Herald Times, November 20, 2016.
- “A Solar Panel’s Inside Job”, by Daniel Akst, Wall Street Journal, January 7, 2017.
- “All Sewn Up”, The Economist, July 23, 2016.
- “Punished for Finding Problems”, by Jordan Rau, Kaiser Health News, reprinted in The Bloomington Herald Times, April 23, 2016.
- “Hospital Firm Retreats as Insurer”, by Melanie Evans, Wall Street Journal, December 16, 2016.
- “Disrupting Mr. Disrupter”, The Economist, November 28, 2015.
- “The Guide to the Future of Medicine”, by Bertalan Mesko, MD, PhD, Qmed, December 2, 2015.
- “From Lending Club to Theranos, the Limits of Disruption”, by Justin Lambert, Wall Street Journal, May 14, 2016.