15.S06 Economics of the Health Care Industries

Spring 2016

New Time: Meets Tuesday/Thursday 10-11:30am
New Course Number: Formerly 15.141 / HST.918J

Instructors:
Joseph Doyle, PhD. Erwin H. Schell Professor of Management and Applied Economics at MIT Sloan
Hannah Kettler, PhD Senior Program Officer, Global Health Advocacy, Bill and Melinda Gates Foundation

TA:
Ron Marconet

Guest Lectures:

Juliana Abbott, MBA, Director, US Market Analytics and Co-Lead, DTC Center of Excellence, Pfizer
Willard H. Dere, MD, Former Senior Vice President and International Chief Medical Officer, Amgen, and now Clinical Professor, University of Utah Medical School
Richard Brudnick, MBA (MIT Sloan), Vice-President, Co-Head Business Development/M&A, Biogen Idec
Donald M. Berwick, M.D., former Administrator of the Centers for Medicare & Medicaid Services 2010-2011; Former President and Chief Executive Officer of the Institute for Healthcare Improvement
Rekha Ramesh, MPP, Policy and Public Health Group, US and Global Reimbursement and Pricing, Gilead Science, Foster City, CA.

Course Goals: Help you gain an understanding of the major economic, strategic and organizational issues facing management, investors, clinicians and policymakers in various health care and allied industries in the US and globally. These include pricing, advertising and the market and regulatory incentives for innovation across various health care and allied industries, such as the pharmaceutical, biotechnology, medical
device, vaccine and diagnostic sectors. The course will emphasize the use of data analytics to identify valuable improvements in health care, as well as the search for more efficient use of our health care dollars.

**Typical Class Session:** 10:05 – 11:25am: Faculty or Guest Lecturer leads discussion. In most but not all cases with an outside speaker, there is an informal lunch with the faculty, guest speaker, TA and a few students. The professors’ powerpoint slide presentations will be posted on Stellar before class. In most but not all cases, the guest speaker will also have a powerpoint presentation, which will in most cases be posted on Stellar as well (sometimes only after class meets).

**Lunches with Speakers:** Most of the guest speakers have agreed to stay after class and go out for an informal dinner with several students, the course teaching assistant and the professors. Students are given a chance to express their preferences to the course teaching assistant regarding their preferred choice of guest speaker with whom to dine.

**Course Requirements:**

| Participation | Attend class and provide comments that advance the discussion. Read assigned articles before class, be prepared with questions for guest speaker. For EMBA virtual students, see next page. | 25% |
| Individual Essays | Choice of 2 of 3 individual essays (up to 5 double-spaced pages each) | 50% |
| Group Assignment | Up to 5 double-spaced pages and up to 4 presentation slides. 2-3 Groups will present in the last class and everyone will be able to participate in a broader class discussion. | 25% |

**Readings.**

We do not have a course reader. Instead we have listed readings for each lecture, many of which are noted as optional background reading. Readings are available on Stellar.

**Assignments:**

The essays will cover topics covered in the course such as:

New payment models in health care comparing fee-for-service payments with new “at-risk” contracts.
Evaluating criteria used by regulators and payers across the globe to approve new drugs and devices as well as to pay for new drugs and devices.

Evaluate policies and practices that incentivize innovation in healthcare, including their effects on quality improvements and cost growth.

Evaluate the interplay between diagnostics and therapeutics, both broad-based and in terms of more “personalized” medicine.

Advances in telehealth and implications for patients, providers and payers.

**Virtual EMBA students:**

This course allows virtual participation for Executive MBA students. Each class session will be captured by temporary video and audio, and streamed live to long-distance students via MIT Sloan Technology; EMBA virtual students can interact with the live class using the Bluejeans.com conferencing technology hosted by the Sloan Technology Services staff and the teaching assistant. This technology will also allow students to “check in”, signaling virtual attendance. Because of time zone differences, long-distance learning EMBA students will be permitted to view the streamed class session until 9 am the following morning, at which time the temporary video and audio capture file will be destroyed. Videos of class sessions cannot be downloaded and will not be archived. Since the class is being streamed live and is interactive, in-person local students should be aware that they will be “on camera” during the entire class session, and distance learning students sitting by their webcam-enabled personal computer will have their faces displayed on a large side screen in the front of the E62-262 classroom during the entire class session. Regular resident MBA students must attend classes in person, not virtually.

The materials presented in this class are for the educational use of the students registered for this course. Materials include, but are not limited to, handouts, manuscripts and articles, slides, speakers, syllabi, and on-line materials. Students are not authorized to videotape, photograph or record classroom activities for future use including posting on the internet or any other forum without prior written consent by the professors. Also, students are not authorized to post any course materials on the internet, cloud or in any other forum without prior written consent by the professors. These restrictions do not expire and continue in perpetuity.
### Spring 2017 Draft Course Outline

<table>
<thead>
<tr>
<th>Day</th>
<th>Date</th>
<th>Topic</th>
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<tbody>
<tr>
<td>Tues</td>
<td>7-Feb</td>
<td>Introduction to the Health Care Industries &amp; the Changing US Healthcare System</td>
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<tr>
<td>Thurs</td>
<td>9-Feb</td>
<td>Introduction to the Economics of Global Health</td>
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<tr>
<td>Tues</td>
<td>14-Feb</td>
<td>Pricing &amp; Marketing in Health Care</td>
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<tr>
<td>Thurs</td>
<td>16-Feb</td>
<td>Market and Regulatory Incentives for Innovation in Healthcare</td>
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<tr>
<td>Tues</td>
<td>21-Feb</td>
<td>NO CLASS (Holiday)</td>
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<tr>
<td>Thurs</td>
<td>23-Feb</td>
<td>Health Econometrics: Establishing Causal Evidence in Health Care</td>
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<tr>
<td>Tues</td>
<td>28-Feb</td>
<td>Guest speaker: William Dere (formerly Amgen)</td>
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<tr>
<td>Thurs</td>
<td>2-Mar</td>
<td>The Business of Science: Designing and Managing Clinical Investigations</td>
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<tr>
<td>Tues</td>
<td>7-Mar</td>
<td>Guest speaker: Juliana Abbott (Pfizer) Direct to Consumer Advertising in Pharmaceuticals</td>
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<tr>
<td>Thurs</td>
<td>9-Mar</td>
<td>Guest speaker: Richard Brudnick (BiogenIdec) Biologics, Small Molecules and Biobetters</td>
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<tr>
<td>Tues</td>
<td>14-Mar</td>
<td>Guest speaker: Donald Berwick (IHI and CMS), Opportunities in the Management Improvements in Healthcare Systems</td>
</tr>
<tr>
<td>Thurs</td>
<td>16-Mar</td>
<td>Guest speaker: Rekha Ramesh (Gilead). Economics of Pricing of Pharmaceuticals</td>
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The MIT Sloan Mission
http://mitsloan.mit.edu/about/mission.php

The mission of the MIT Sloan School of Management is to develop principled, innovative leaders who improve the world and to generate ideas that advance management practice.

Values@MIT Sloan
https://mysloan.mit.edu/offices/deans/values/Pages/default.aspx

The MIT Sloan Mission statement (above) provides the context for core values that express who we are at our best. These core values include integrity, respect, collaboration, innovation, and positive impact. We invite all members of our community – students, staff, faculty, alumni – to practice these values in all the ways we work together, both inside and outside of the classroom.
MIT Sloan Policy on Classroom Behavior

In order to create a productive learning environment and to ensure mutual respect it is essential that the norms and rules of classroom etiquette and behavior reflect the highest standards. It is also important that these norms be consistently enforced by the faculty across all classes. Although in the final analysis each faculty member is responsible for his or her own classroom, there are significant negative consequences for other faculty and for the School if rules are not consistent and are not enforced. Therefore it is the policy of the MIT Sloan School that

- Students are expected to arrive promptly on time and to stay for the entire class.
- Faculty are expected to begin and end class on time.
- Laptops and e-readers are not be open in the classroom except with explicit permission of the faculty (e.g., when used as part of the instructional program or when required by students because of physical or other challenges)
- Cell phones and PDAs are not to be used or permitted to ring in the classroom.
- Students are expected to attend all classes.

It is expected that faculty will articulate how these rules apply in their class as well as how the rules will be enforced.

A Note re Recruiting

Please note that in accordance with this policy, MIT Sloan requires that students schedule campus interviews outside of scheduled class times and to make every attempt to schedule second round interviews and site visits outside of class times. Classes missed for such activities are not excused absences and may count against your participation grade.

ACADEMIC HONESTY – INTEGRITY IN PRACTICE

As a member of the MIT Sloan academic community, you are expected to uphold the highest standards of academic integrity. Violations of academic integrity include, but are not limited to, cheating, plagiarism, unauthorized collaboration, and facilitating academic dishonesty. Please see the document Academic Integrity at the Massachusetts Institute of Technology.
Institute of Technology: A Handbook for Students for further discussion of this topic. These standards are also discussed below, specifically regarding plagiarism, individual work, and team work.

It is your responsibility to make yourself aware of MIT's rules of academic integrity and to adhere to them. When students are found to have violated academic standards, disciplinary action will result. Possible consequences include grade reduction, an F grade, a transcript notation, delay of graduation, or expulsion from MIT.

This discussion of academic integrity below is not exhaustive, and there may be areas that remain unclear to you. If you are unsure whether some particular course of action is proper, it is your responsibility to consult with your professor and/or teaching assistant for clarification.

**Plagiarism**

Plagiarism occurs when you use another's intellectual property (words or ideas) and do not acknowledge that you have done so. Plagiarism is a very serious offense. If it is found that you have plagiarized -- deliberately or inadvertently -- you will face serious consequences, as indicated above.

The best way to avoid plagiarism is to cite your sources - both within the body of your assignment and in a bibliography of sources you used at the end of your document.

Materials gathered through research via the Internet must be cited in the same manner as more traditionally published material. Lack of such citation constitutes plagiarism.

To review rules of citation: http://libguides.mit.edu/content.php?pid=80743&sid=598642

**Individual Assignments**

Many assignments in MIT Sloan courses are expected to be done individually. The information below outlines what is meant by “individual” work. These rules should be observed unless otherwise defined by the instructor.
When you are asked to do *individual* work, you are expected to adhere to the following standards:

- Do not copy all or part of another student’s work (with or without “permission”).
- Do not allow another student to copy your work.
- Do not ask another person to write all or part of an assignment for you.
- Do not work together with another student in order to answer a question, or solve a problem, or write a computer program jointly.
- Do not consult or submit work (in whole or in part) that has been completed by other students in this or previous years for the same or substantially the same assignment.
- Do not use print or internet materials directly related to a case/problem set unless explicitly authorized by the instructor.
- Do not use print or internet materials without explicit quotation and/or citation.
- Do not submit the same, or similar, piece of work for two or more subjects without the explicit approval of the two or more instructors involved.

Please note that many classes will require a combination of team work and individual work. *Be sure that you follow all the guidelines for individual work when a faculty member identifies an assignment as an individual one.*

**Team Assignments**

When you are asked to *work in teams*, there is a broad spectrum of faculty expectations. Three general types of appropriate collaboration on team assignments are described below. The instructor will indicate in the syllabus what his/her expectations are. If there is any uncertainty, it is the student’s responsibility to clarify with the professor or TA the type of team work that is expected.

Type 1 collaboration:

The professor states that collaboration is allowed, but the final product must be individual. An example of this might be a problem set.

- You are allowed to discuss the assignment with other team members and work through the problems together.
- What you turn in, however, must be your own product, written in your own handwriting, or in a computer file of which you are the sole author.
• Copying another's work or electronic file is not acceptable.

Type 2 collaboration:
The professor states that collaboration is encouraged but that each person's contribution to a given deliverable does not have to be substantial (allowing groups to take a "divide and conquer" approach). An example of this might be a brief progress report that is part of a more extensive collaboration (as a whole, the more extensive collaboration may be Type 3).

• Each team member is encouraged to contribute substantially to the team assignment, however, the team may choose to assign one or more team members to prepare and submit the deliverable on behalf of the team.
• Regardless of how work is shared or responsibilities are divided among individual team members, each member of the team will be held accountable for the academic integrity of the entire assignment. If, for example, one member of the team submits plagiarized work on behalf of the team, the entire team will be subject to sanctions as appropriate.
• The team may not collaborate with other students outside of the team unless the professor explicitly permits such collaboration.

Type 3 collaboration:
The professor states that collaboration is expected and that each team member must contribute substantially to the deliverable.

• Each team member must make a substantial contribution to the assignment, though the team may divide the work of any one assignment to complete it as they deem appropriate.
• The team may not collaborate with other students outside of the team unless the professor explicitly permits such collaboration.

If you are unsure whether some particular form of interaction is proper in individual or team work, it is your responsibility to consult the instructor and/or teaching assistant for clarification and guidance.