

# Life Science Product Strategy (HM 718E)

## Executive MBA Program

---



The course is open to students in the Global and Weekend Executive MBA programs at Duke University.

### Links

- Course web: <http://fuqua.instructure.com/>
- Professor web: <https://faculty.fuqua.duke.edu/~dbr1/>
- Professor email: [david.ridley@duke.edu](mailto:david.ridley@duke.edu)

### Professor

My name is David Ridley. I am a health economist and the Faculty Director for Duke's Health Sector Management center. In my research I examine innovation and pricing in health care. I was the lead author of the paper proposing the priority review voucher program which became law in 2007 and created a market of more than a billion dollars for drug development for neglected diseases. I have taught health care management to more than 3,000 Duke graduate students since 2001. I enjoy discussing health care strategy and policy with Duke graduate students.

### Overview

We will examine business strategy in the biotech, device, diagnostic, and pharmaceutical industries, with a focus on product development and innovation. Life science companies face new challenges and opportunities. Developed markets are experiencing changes in regulatory oversight and reimbursement, including emphasis on value-based reimbursement. Emerging markets are growing rapidly. Patient populations are shrinking as diagnostics become better able to identify which patients respond best to which medicines. Many companies are focusing on rare diseases, moving away from the traditional blockbuster model.

To succeed, industry professionals need a deep understanding of corporate strategy, financing options, product development and innovation management, marketing, reimbursement, and customer needs. However, health care is different from other industries in important ways, including regulation and reimbursement.

We will begin each class with a discussion of a case. Some people in the class will have little background in the life sciences. Please feel free to ask us to clarify unfamiliar terms. Also, for those with less background in the life sciences, we posted supplementary materials on the class web page.

Businesses and foundations active in health care have supported my research. This interaction with can provide helpful insights, but also might create bias. I genuinely hope to encourage vigorous discussion about the life science industry and welcome diverse views.

## Objectives

By the end of the class, you will better understand how life science companies

- acquire knowledge and products
- commercialize innovative products
- evaluate product safety and efficacy
- use clinical trials to persuade not only regulators but also payers and providers
- manage intellectual property
- justify the value of products
- determine price
- estimate cost effectiveness
- market to providers and patients
- interact with intermediaries
- estimate peak market share
- shift from blockbuster to niche product strategy
- compete as patent expiration approaches

## Grading

Graduate students generally focus on learning rather than grades, but it is nevertheless important to outline the grading criteria.

- 30% participation
- 30% daily assessments; we will drop the lowest
- 15% midterm exam
- 25% final exam

Please join the discussion in the distance portion of the class. Class discussion enriches understanding by you and your peers. However, you have family, work, and religious obligations on Saturdays, as well as time-zone differences, so absences are excused.

The Fuqua School of Business Honor Code applies to the course.

## Assessment

For each class, there will be an assessment on the class web page. You may ignore the questions in the case. Past students reported working an average of 4 hours per assessment. We will drop the lowest assessment score for each person. The assessments are “open” meaning that you can use class readings and other readings to answer the questions. The assessments are formatted as quizzes, but have no time limit, other than a deadline.

Assessments are due 30 minutes before the start of class. Assessments are not accepted after class, because i) the primary objective of the homework is to encourage preparation for class, ii) answers are

included in the slides posted on the web page after class, and iii) it is generally better to work on future homework rather than past homework.

You may discuss the assessments with other current students in the class, but each student should submit a unique copy in her own words. Working with other current students should be a complement rather than a substitute for your own work. Also, you may use readings beyond the readings assigned for class.

## Exams

The exams are online and consist primarily of multiple-choice questions. The time limit is 45 minutes (adjusted for those with disabilities), and most students finish within about 30 minutes. Exams are “closed”, meaning that you may not consult materials or other people. The midterm covers content from the first half of the class and the final exam is comprehensive. Exams are based primarily on material in the video lectures, class slides, and readings. Class materials marked “optional” will not be tested.

## Class recordings

We avoid recording and sharing videos of students discussing health care topics, to the extent permitted by Fuqua policy. Health care includes controversial topics and we want students to have an open discussion. Instead of class discussion recordings, we provide recordings of many lectures as well as class slides. Also, the exams do not include questions from class discussion.

## Schedule

See the next page.

Class	Date	Time	Topic	Case
1	29-Aug	12:00 pm	Outsourcing	Dr. William Carson - Intrapreneurial Innovation in the Pharmaceutical Industry
2	13-Sep	11:30 am	Pipeline Strategy	Vertex Pharmaceuticals: R&D Portfolio Management
3	14-Sep	2:15 pm	Neglected Diseases	Genzyme's CSR Dilemma: How to Play Its HAND
4	15-Sep	6:30 pm	Diagnostics	GenomicHealth: Launching a Paradigm Shift
5	16-Sep	8:45 am	Vaccine Launch	Merck: Pricing Gardasil
6	17-Sep	8:45 am	Intellectual Property & Emerging Markets	Viagra in China: A Prolonged Battle over Intellectual Property Rights
7	18-Sep	11:30 am	Medical Devices	Heartport Inc
	19-Sep	11:00 pm	Online midterm exam released after class 6 and due Saturday by 11 pm	
8	03-Oct	12:40 pm	Reimbursement in Established Markets	Novartis' Gilenya
9	17-Oct	12:40 pm	Reimbursement in the US	See course web site
10	31-Oct	12:40 pm	Lifecycle Management	Pharmaceutical Switching
11	14-Nov	12:40 pm	Generics & Biosimilars	Teva Pharmaceuticals
	30-Nov	11 pm	Online final exam: released at the start of exam week and due at the end of exam week	