

MBE 5301: Strategy for R&D Intensive Firms
Instructor: Sofronis Clerides

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Course description

Successful companies need to understand the process of strategy formulation, implementation, and review. This course lays out the basic principles underlying this process for firms aiming to achieve and maintain competitive advantage in a constantly changing business environment. The first half of the course exposes students to various approaches to strategy formulation. It uses concepts from the theory of the firm to help students understand the strategic choices related to the firm's internal organization, placing particular emphasis on the role of human resource management. It then employs game theoretic tools to analyze strategic interactions among firms in different market environments. The second half of the course applies these tools to specific strategy challenges faced by firms in R&D-intensive industries with network characteristics, with emphasis on research strategy, IP management, and pricing.

Delivery

The course will be delivered in six 3-hour lectures. Interaction between students and the instructor is an integral part of the learning process, therefore students are expected to attend all lectures and contribute to class discussions. The instructor should be notified in advance if a student is unable to attend a lecture.

Assessment

1. Class participation 10%
2. Individual assignment 20%
3. Group assignment and presentation 20%
4. Final examination 50%

Minimum requirements for passing the course: **at least 80% attendance and at least 40% in the examination.**

The individual assignment is designed to serve as preparation for the exam. It will include the same types of questions that you will get in the exam.

Contact

All course-related material will be posted on the class created on Microsoft Teams. This includes the present syllabus, notes, presentations, and links to readings and additional materials.

Office hours: please contact me at s.clerides@ucy.ac.cy to arrange a meeting.

Main sources

The following books cover a lot of the background material for the course. Specific readings from these books, as well as additional readings from other sources are listed in the course schedule below.

Dixit A. and B. Nalebuff (2010). *The Art of Strategy*, W.W. Norton & Co. Book website: <http://artofstrategy.com>.

Besanko D., Dranove, D., Shanley, M. and S. Schaefer (2017). *Economics of Strategy*, 7th Edition, Wiley.

The CORE Team (2016). *The Economy*.

Pepall, Richards and Norman (2014). *Industrial Organization: Contemporary Theory and Empirical Applications*, 5th Edition, Wiley.

Additional sources

These books are for people who want to delve more into specific topics.

Greenwald, B. and J. Kahn (2007). *Competition Demystified: A Radically Simplified Approach to Business Strategy*, Penguin.

- In the tradition of Porter, but shorter, more focused, and simplified, as the title suggests.

Harris, J.D. and M.J. Lenox (2013). *The Strategist's Toolkit*, Darden Business Publishing.

- A nice, short textbook from the management perspective.

Schilling, M. (2016). *Strategic Management of Technological Innovation*, 5th ed., McGraw-Hill Education.

- Widely used textbook on technology management.

Course schedule

Lecture 1: Introduction to strategy / The boundaries of the firm / Strategic human resource management

- Main reading: instructor notes.
- Additional reading:
 - Dixit and Nalebuff chapter 1, "Ten Tales of Strategy".
 - Greenwald and Khan, chapter 1.
 - Porter, M.E. (1979). "[How Competitive Forces Shape Strategy](#)," *Harvard Business Review*.

Lecture 2: Strategic interactions and game theory

- Main reading: instructor notes.
- Additional reading: chapter 2 in Dixit and Nalebuff; or chapters 9 and 11 in Pepall, Richards and Norman; or similar chapters in many other textbooks.

Lecture 3: Market structures

- Main reading: instructor notes
- Additional reading: chapters 3-4 in Dixit and Nalebuff; or chapter 10 in Pepall, Richards and Norman; or similar chapters in many other textbooks.

Lecture 4: Strategic use of IPRs

- Main reading: instructor notes
- Additional reading:
 - Chapters 20 and 21 in Pepall, Richards and Norman.
 - Chapter 20 in *The Economy*, The CORE Project.
 - Perzanowski A. and Schulz, J., "[A Patent Case That Affects Everyone](#)," Bloomberg, 21 March 2017.

Lecture 5: Pricing strategies

- Main reading: instructor notes
- Additional reading:
 - Any book on introductory microeconomics covers the basics of price discrimination.
 - Chapters 5, 6, 8 in Pepall, Richards and Norman.
 - Allhoff, F., "[Daraprim and Predatory Pricing: Martin Shkreli's 5000% Hike](#)," 5 October 2015.

Lecture 6: Network issues

- Main reading: instructor notes
- Additional reading:
 - Chapter 22 in Pepall, Richards and Norman.