

**EW MBA290I.1 - Managing Innovation and Change:
Knowledge, Intellectual Capital & Competitive Advantage**
Professor David J. Teece

Class Schedule

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| Date: | Thursday |
| Time: | 6:05 - 9:30 PM |
| Location: | C220 (Cheit Hall) |
| Office Hours: | 5:00 – 6:00 PM (Thursday) or by appointment (contact: Anita Stephens tel: 510/642-1075, F402 Haas School; or email: < <i>stephens@haas</i> >) |
| Office: | F402 Haas School (tel: 510/642-1075 - fax: 510/642-2826), teece@haas.berkeley.edu |
| Off Campus Office: | Tel: 510/985-6799, email: david_teece@lecg.com |

Course Description:

The development, protection, utilization, and transfer of knowledge assets lie at the core of wealth creation in today's global economy. This course is designed to help Haas MBAs acquire and practice concepts and skills that are relevant to management in a technologically dynamic environment.

This course draws on a variety of disciplines and attempts to integrate them in the fashion that will generate key insights into how technology can be developed and managed. We endeavor to provide frameworks for intellectual capital management in the private sector. The course ought to be of assistance to those interested in working for either large or small firms in technologically progressive industries, as well as those wishing to understand how mature industries can create and respond to innovation.

This course will help you appreciate the importance of intangible assets to competitive advantage and understand how firms:

- Generate technological innovation
- Access external technological innovation
- Transfer existing knowledge to other parts of the firm
- Utilize the tools of intellectual property
- Develop strategies for commercializing technology

- Aggregate and manage top talent
- Measure the value of knowledge assets

Requirements:

A grade for the course will be assigned based on the following:

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|-----------------|----------------------------------|
| 1. Midterm exam | 50% |
| 2. Final paper | 50% (due at end of the semester) |

Required Readings:

- Teece, D. J. Managing Intellectual Capital, Oxford University Press (2000).
- Schilling, Melissa , Strategic Management of Technological Innovation, McGraw Hill (2005).
- Course reader (readings which are in the course reader are marked below with an *).

Recommended Books:

- 1) Utterback, James, Mastering the Dynamics of Technological Innovation, HBS Press (1996).
- 2) Schilling, Melissa , Strategic Management of Technological Innovation, McGraw Hill (2005).

Course Content:

I. THE KNOWLEDGE ECONOMY & INTELLECTUAL CAPITAL MANAGEMENT

1. Required Reading:

- M.A. Schilling, “Introduction”, Strategic Management of Technological Innovation (Chapter 1), p. 1 – 10.
- D. J. Teece, “The Knowledge Economy and Intellectual Capital Management,” Managing Intellectual Capital (Chapter 1), p. 3 – 12 .

II. THE NATURE OF KNOWLEDGE AND PATTERNS OF INNOVATION

1. Required Reading:

- D. J. Teece, Managing Intellectual Capital (Chapter 1), p. 13 – 26.
- M.A. Schilling, Strategic Management of Technological Innovation (Chapter 1).
- E. Sherry and D. J. Teece, “Intellectual Property Rights and The Value of Innovation”. *

III. MARKET STRUCTURE, INCUMBENCY, AND TIMING OF ENTRY

1. Required Reading:

- M.A. Schilling, Strategic Management of Technological Innovation (Chapter 5).
- D. J. Teece, “The Impact of Market Structure and Organizational Factors on Innovation,” Managing Intellectual Capital (Chapter 2).
- C. Christensen and M. Overdorf, “Meeting the Challenge of Disruptive Change,” Harvard Business Review on Innovation (HBS Press, 2001). *

IV. TECHNOLOGY TRANSFER, APPROPRIABILITY, AND STANDARDS

1. Required Reading:

- M.A. Schilling, Strategic Management of Technological Innovation (Chapter 4 & 9).
- D. J. Teece, “Appropriability and Markets for Know-how and Competence,” Managing Intellectual Capital, p. 20 – 26.

V. MANAGING TOP TALENT AND THE EXPERT EMPLOYEE

1. Required Reading:

- S. Albert and K. Bradley, “Adaptation in the Labour Market and the Expert Employee,” (Chapter 2), Managing Knowledge (Cambridge University Press, 1997). *

- D. J. Teece, “Expert Talent and the Design of (Professional Services) Firms,” Industrial and Corporate Change, 12:4 (Aug. 2003). *
- H. Chesbrough, “Services Science: A Manifesto,” UC Berkeley (December 9, 2004). *

VI. (A) ORGANIZING FOR INNOVATION: GENERAL

1. Required Reading:

- M.A. Schilling, Strategic Management of Technological Innovation (Chapter 8 & 10).
- D. J. Teece, “Governance Modes and Technological Innovation,” Managing Intellectual Capital (Chapter 3).
- D. J. Teece, “Industrial Research,” in Stanley I. Kutler (ed.), Dictionary of American History, (McGraw Hill Education, forthcoming). *
- D. J. Teece, “Outsourcing and Insourcing Strategies for Innovators,” Managing Intellectual Capital (Chapter 7).

V. (B) ORGANIZING FOR INNOVATION: KNOWLEDGE CREATION & AND NEW ENTERPRISE FORMATION

- D. J. Teece, “Outsourcing and Insourcing Strategies for Innovators,” Managing Intellectual Capital (Chapter 7).
- William Baumol, “Entrepreneurship: Productive, Unproductive, and Destructive,” in Growth, Industrial Organization and Economic Generalities. *

VI. (C) ORGANIZING FOR INNOVATION: TECHNOLOGICAL PARADIGM SHIFTS

1. Required Reading:

- Rebecca M. Henderson and Kim B. Clark. “Architectural Innovation: The Reconfiguration of Existing Product Technologies and the Failure of Established Firms.” Administrative Science Quarterly 35:1, (Mar., 1990). *
- Clayton Christensen and Joseph Bower. “Disruptive Technologies: Catching the Wave,” Harvard Business Review, 73:1 (Jan. 1995). *

2. Recommended:

- James Utterback. “Dominant Designs and the Survival of Firms,” Mastering the Dynamics of Innovation (Chapter 2).

VII. DECISION FRAMES AND ERRORS

1. Required Reading:

- D. J. Teece, “Decision Making Processes and the Rate and Direction of Innovation,” (with Janet Bercovitz and John de Figueiredo), Managing Intellectual Capital (Chapter 4).
- H. Chesbrough, “The Governance and Performance of Xerox’s Technology Spin-Off Companies,” Research Policy 32 (2003), p. 403 – 421. *
- M.A. Schilling, Strategic Management of Technological Innovation (Chapter 7).
- D. J. Teece, Xerox Parc and the Personal Computer: A Teaching Note (A) & (B), 1992. *

1. Recommended:

- H. W. Chesbrough and R. S. Rosenbloom, “The Role of the Business Model in Capturing Value from Innovation: Evidence from Xerox Corporation’s Technology Spin-off Companies,” Industrial and Corporate Change, 11:3 (June 2002). *
- R. Sutton, “Some Weird Ideas That Work,” Knowledge Directions, 3:2 (Fall/Winter 2001). *

VIII. COMMERCIALIZING INNOVATION

1. Required Reading:

- D. J. Teece, “Market Entry Strategies for Innovators: Avoiding Pyrrhic Victories,” Managing Intellectual Capital (Chapter 5).
- D. J. Teece, “Imitation Strategies for Owners of Complementary Assets,” Managing Intellectual Capital (Chapter 6).

2. Recommended:

- M. A. Peteraf, “The Cornerstones of Competitive Advantage: A Resource-Based View,” Strategic Management Journal, 14:3 (March 1993). *

IX. DYNAMIC CAPABILITIES AND LEARNING

1. Required Reading:

- M.A. Schilling, Strategic Management of Technological Innovation (Chapter 6).
- D. J. Teece, “Dynamic Capabilities,” in William Lazonick (ed.), The International Encyclopedia of Business Management (London: Thomson Learning Publishers, 2002). *
- D. J. Teece, “A Review and Assessment of Organizational Learning in Economic Theories” (Chris Boerner and Jeffrey Macher), in Meinolf Dierkes, Ariane Berthoin Antal, John Child and Ikujiro Nonaka (eds.), Handbook of Organizational and Knowledge (NY: Oxford University Press, 2001). *
- D. J. Teece, Managing Intellectual Capital (Chapter 1), p. 26 – 31.
- D. J. Teece, “Explicating Dynamic Capabilities: The Role of Business Processes, Designs, Decisions, Asset Orchestration, and Governance in Enterprise Performance,” Draft (April, 2005). *
- D. J. Teece, “Dynamic Capabilities and the (Economic) Functions of the Executive,” Draft (July 7, 2005). *

X. MEASURING KNOWLEDGE ASSETS

1. Required Reading:

- B. Lev, Intangibles: Management, Measurement, and Reporting (Chapter 2), p. 21-49. *
- B. Lev, Intangibles: Management, Measurement, and Reporting (Chapter 3), p. 51-77. *

- A. Binetti and C. Morrow, “A Literature Review: Current State of the Management and Measurement of Intangible Assets,” (May 27, 2005). *

XI. THE LICENSING OF ADVANCED TECHNOLOGY AND INTELLECTUAL PROPERTY

1. Required Reading:

- D. J. Teece, “Understanding the Licensing Option,” (with Peter Grindley and Edward Sherry) Managing Intellectual Capital (Chapter 8 and Appendices A & B).
- A. Arora, A. Fosfuri, and A. Gambardella, “Intellectual Property, Fabless Companies, and the Market for Technology in Semiconductors,” (Chapter 3) in Markets for Technology (MIT Press, 2001). *

XII. PUBLIC POLICY IN HIGH TECHNOLOGY

1. Required Reading:

- D. J. Teece, “Antitrust Analysis in High Technology Industries,” (with Mary Coleman) Managing Intellectual Capital (Chapter 9).
- D. J. Teece and E. Sherry, “Standards Setting and Antitrust,” Minnesota Law Review, 87:6 (June 2003). *