UNIVERSITÉ DE NAMUR

FACULTÉ
DES SCIENCES ÉCONOMIQUES,
SOCIALES ET DE GESTION

Innovation Management (EING-M200)
Course Syllabus
January 2015 (**Credits**: 5 ECTS)

This syllabus provides the information concerning the course topics and organisation and the requirements for the evaluation.

1 Contact Information

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If you have a question concerning the course, don't hesitate to contact me by email. If needed, we can also arrange an appointment.

2 Course Objectives

This course analyses the different facets of the innovation process. It is divided in four parts: (1) Innovation Dynamics ; (2) Innovation Process ; (3) Open Innovation ; (4) Innovation Strategy and Organization. The main objectives of the course are

- to acquire the fundamental knowledge about the topic from research and practice literature ;
- to make students aware of the importance of innovation, in particular technological innovation, for firms survival and growth ;
- to underline the complexity and uncertainty of the management processes linked to innovation ;
- to go beyond the linear and causal view of innovation, which is more and more a process involving various internal and external actors ;
- to understand the major skills to manage innovation both at the strategic and operational levels.

3 Course Material

Readings

Required readings

- W. J. Abernathy and J. M. Utterback (1978) « Patterns of industrial innovation », Technology review, Vol. 80, June-July
- M. Callon et B. Latour (2006) « Le Grand Léviathan s'approvoise-t-il ? » in Sociologie de la traduction.

Textes fondateurs, Presses de l'Ecole des Mines de Paris, pp. 11-32
- C. M. Christensen (1999) *The Innovator's Dilemma – When New Technologies Cause Great Firms to Fail*, Harvard Business School Press, Boston
- P. F. Drucker (1985) *Innovation and Entrepreneurship*, Chapter 2, Harper
- J. T. Gilbert and Ph. H. Birnbaum-More (1996) « Innovation timing advantage: From economic theory to strategic application », Journal of Engineering and Technology Management, Vol. 12, pp. 245-266
- D. Nichols (2007) « Why innovation funnels don't work and why rockets do », Market Leader, Autumn, pp. 26-31
- D. Rouach and Y. Poivey (2000?) « Nestlé: Interaction of R&D and Intelligence Management »
- D. J. Teece (1986) « Profiting from technological innovation – Implications for integration, collaboration, licensing and public policy », Research Policy, Vol. 15, pp. 285-305
- The Economist (2000) « Selling fuel celles », The Economist, June 29th 2000
- M. L. Tushman and P. Anderson (1986) « Technological Discontinuities and Organizational Environments », Administrateive Science Quarterly, Vol. 31, pp. 439-465
- J. M. Utterback (1996) *Mastering the Dynmaics of Innovation – How Companies Can Seize Opportunities in the Face of Technological Change*, Chapter 2, Harvard Business School Press, Boston
- E. von Hippel (2005) *Democratizing Innovation*, Chapter 1, MIT Press, Cambridge, available freely online under Creative Commons License

Suggested readings

- W. B. Arthur (1989) « Competing Technologies, Increasing Returns, and Lock-In by Historical Events », The Economic Journal, Vol. 99, pp. 116-131
- A. Bonaccorsi and C. Rossi (2003) « Why Open Source software can succeed », Research Policy, Vol. 32, pp. 1243-1258
- N. G. Carr (2005) « Mastering Imitation », Strategy + Business, issue 36
- C.W.I. Pistorius and J.M. Utterback (1997) « Multi-mode interaction among technologies », Research Policy, Vol. 26, pp. 67-84
- N. Rohner and R. Boutellier (2004) « Diffusion of Wireless Communication technologies and Technological Lock-in », Working Paper, ETH Zurich
- P. F. Nunes, N. P. Mulani, T. J. Gruzin (2007) « Leading by imitation », Outlook – The journal of high performance business, January

Webpage

See webcampus, course EINGM200

Lecture Notes

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Pdf files of the powerpoint presentations of each course are available on the website.

4 Course Requirements and Grading

The course will be evaluated through (1) a group work (max. 4 students) presenting either an illustrative case of an innovation management situation or a recent research topic concerning innovation management; and (2) a written open book exam where students will have to analyse a case on the basis of the course concepts. an individual discussion based on a personal Case Study. Concerning the group work, each group is supposed to provide, two weeks before the end of the semester, a paper responding to the scientific writing standards. The paper should not exceed 15 pages (Times 12 pt, 1.5 line spacing). During the exam, each student will have to answer an additional question on the group work.
The final grade will be distributed as follows:

- Group work 40 %
- Case study exam 50 %
- Individual question on group work 10 %

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7 Course Outline

Part One – Innovation Dynamics		
A. Technology Dynamics	Date: 03/02/2015	Reading: Tushman & Anderson
B. Market & Technology Dynamics	Date: 10/02/2015	Reading: Christensen
C. Industrial Dynamics	Date: 17/02/2015	Reading: Abernathy & Utterback
Part Two – Innovation Process		
A. Models and Practices	Date: 24/02/2015	Reading: Nichols
B. Innovative People	Date: 03/03/2015	Video: Berkun at Carnegie Mellon
Part Three – Open Innovation		
A. Innovating with Users	Date: 10/03/2015	Reading: Von Hippel
B. Collaborating for Innovation	Date: 17/03/2015	Reading: Case Study (Fuel Cell)
C. Intellectual Property Questions	Date: 24/03/2015	Readings: Teece, Outsourcing Innovation (Business Week)
Part 4 – Innovation Strategy and Organization		
A. Leading or Following?	Date: 31/03/2015	Reading: Gilbert and Birnbaum-More
B. Organizational Structures for Innovation	Date: 21/04/2015	Reading: Case Study (Nestlé)
C. Source of Uniqueness	Date: 28/04/2015	Reading: Drucker
Part 5 – Viewpoints of the industry		
Guest speaker 1	TBD	
Guest speaker 2	TBD	
Participation to Nino 2015	22-23/03/2015	