



APPLIES TO ACADEMIC YEAR 2012/2013

GRA 8179 Managerial Economics, Finance and Innovation

Programme

Executive Master of Management in Energy (EMME)

Responsible for the course

Ole Gunnar Austvik

Department

Department of Innovation and Economic Organisation

Term

According to study plan

ECTS Credits

6

Language of instruction

English

Introduction

This module is part of the Executive Master of Management in Energy in cooperation with BI Norwegian Business School and IFP School.

Learning outcome

The objective of this course is to give an introduction to the understanding of innovation processes in private and public sectors, where knowledge of corporate finance and managerial economics can be applied. Different models of entrepreneurship and innovation will be presented, learning curves and deployment/diffusion dynamics presented, corporate innovation with cases from renewable and fossil energy sources discussed. The need for innovation in both the private and public sectors is documented. Concepts for co-creation and collaboration in, and challenges for, management, governance and government are focused.

The corporate finance and managerial economics sections build on the first module in the program, in which the strategic considerations of profit maximizing business firms are developed under various competitive frameworks balancing operations and financial management. By combining approaches from innovation, economics and finance the students shall be able to carry out integrated analyses for decision making in private and public sectors

Acquired knowledge and skills:

Participants will acquire knowledge of innovation processes, managerial economics and corporate finance, with an emphasis on the following:

- Models of innovation, marginalism versus dynamics
- Learning curves and deployment /diffusion dynamics
- Corporate innovation; models and techniques
- Public sector innovation; fiscal pressure, citizen expectations, new technologies.
- The interdependence between real operation and financial management
- Microeconomic fundamentals for decision making

Reflection:

The participants will acquire knowledge of innovation processes, and managerial economics and corporate finance as tools for financial and economic management in real operations .

Prerequisites

Bachelor degree or equivalent and work experience. Granted admission to the Executive Master of Management in Energy Management programme.

Compulsory reading

Books:

Benington, J., and M. H. Moore. 2011. "Public value in Complex and Changing Times." In *Public value : theory and practice*. New York: Palgrave Macmillan.. pp. 1-30

Chesborough, Henry. 2006. *Open Innovation, Researching a New Paradigm*. Oxford University Press. Oxford. Ch 1

Christensen, Clayton M. 1997. *The innovator's dilemma: when new technologies cause great firms to fail*. Boston, Massachusetts, USA: Harvard Business School Press. Introduction and Ch 1-2

Cooper, Robert G. 2008. "The Stage-Gates Idea-to-Launch Process—Update, What's New, and NexGen Systems". *J Prod Innov Manag*. pp. 213-232

Hillier, David et al. 2011. *Fundamentals of corporate finance*. McGraw-Hill. Selected parts

Mittun, Atle and Nils-Otto Ørjasæter in Maarten Arentsen, Wouter van Rossum and Albert Steenge (eds. 2010. "The Firm as a Nexus Of Product Cycles: Organising Intrapreneurship in The Innovative Firm", in Maarten Arentsen, Wouter van Rossum and Albert Steenge (eds): *Governance of Innovation*. Edward Elgar. Cheltenham

Samuelson, William F. and Stephen G. Marks. 2009. *Managerial Economics*. 6th ed. Hoboken, N.J.: Wiley. Selected parts

Weizsäcker, Ernst von. 2009. *Factor Five*. Earthscan, Sterling USA. pp. 1-19, 267-268, 279-299

Journals:

Borins, S. 2001. "Public management innovation - Toward a global perspective". *American Review of Public Administration*. No 31 (1). pp. 5-21

Conner, Kathleen R. & C. K. Prahalad. 1996. "A Resource-based Theory of the Firm-Knowledge Versus Opportunism". *Organization Science*. Vol 7, No 5 (Sep-Oct)

Hartley, Jean. 2005. "Innovation in governance and public services: Past and present". *Public Money & Management*. No 25 (1). pp. 27-34

Kondratieff N. D. and W. F. Stolper. 1935. "The Long Waves in Economic Life". *The Review of Economics and Statistics*. Vol 17, No 6 (Nov). pp. 105-115

Kuznets, Simon. 1940. "Schumpeter's Business Cycles". *The American Economic Review*. Vol 30, No 2, Part 1 (June). pp. 257-271

Mittun, Atle. 2012. "The greening of European electricity industry: A battle of modernities". *Energy Policy*. Vol 48 (Sep). pp. 22-35 (14 p)

Perez, Carlota. 2010. "Technological revolutions and techno-economic paradigms". *Cambridge Journal of Economics*. Vol 34, Issue 1 (Jan). pp. 185-202

Schleicher-Tappeser, Ruggero. 2012. How renewables will change electricity markets in the next five years. *Energy Policy*. Vol 48 (Sep). pp. 64-75

Wene, Clas-Otto. 2008. "Energy Technology Learning Through Deployment In Competitive Markets". *The Engineering Economist*. 53, pp. 340-364

Recommended reading

Articles:

OECD. 2011. *Green Growth Studies: Energy*. EA-OECD publications, Paris. Executive summary/ Introduction compulsory, the rest is recommended browsing.
www.oecd.org/greengrowth.

OECD. 2012. *World Energy Outlook*. Ch 3, 4, 7 <http://ostseis.anl.gov/guide/oilshale/>

OECD/IEA. 2011. *Deploying Renewables, Markets and Politics*. IEA-OECD publications, Paris. Executive summary/ Introduction compulsory, the rest is recommended readings

Course outline

Computer-based tools

It's Learning

Learning process and workload

1 ECTS credit corresponds to a workload of 26-30 hours.

Sessions include lectures, seminars and group work.

Attendance to all sessions in the course is compulsory. If you have to miss part(s) of the course you must ask in advance for leave of absence. More than 20% absence in a course will require retaking the entire course. It's the student's own responsibility to obtain any information provided in class that is not included on the course homepage/ It's learning or other course materials

Examination

The course evaluation will be based on an individual assignment.

Specific information regarding student evaluation beyond the information given in the course description will be provided in class. This information may be relevant for requirements for term papers or other hand-ins, and/or where class participation can be one of several elements of the overall evaluation

Examination code(s)

GRA 81791 - Term paper; accounts for 100 % to pass the program GRA 8179, 6 ECTS credits

The course is a part of the Executive Master of Management in Energy (EMME) and all evaluations must be passed to obtain a certificate for the degree.

Examination support materials

Exam aids at examinations are explained under exam information in our web-based Student handbook. Please note use of calculator and dictionary.

<http://www.bi.edu/studenthandbook/examaids>

Re-sit examination

Re-takes are only possible at the next time a course will be held. When course evaluation consists of class participation or continuous assessment, the whole course must be re-evaluated when a student wants to retake a exam. Retake examinations entail an extra examination fee.

Additional information