APPLIES TO ACADEMIC YEAR 2013/2014

GRA 8215 Project Evaluation, Financing and Risk Management

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 courses in this module will cover the key concepts, tools and techniques of project finance and financial management and show students how to apply them to companies in the energy sector. Through lectures and case studies with academics and business professionals, participants will learn how to measure and diagnose business performance, how to choose between competing investment proposals and select projects that create value, how to make financing decisions that optimize risk and return and how to value projects and businesses. Finally, throughout these courses, the instructors will attempt to clarify the linkages between corporate strategy, day-to-day operational decisions and the firm's financial performance at a given moment and over time.

Prerequisites
Granted admission to the Executive Master of Management in Energy Management programme.

Compulsory reading

Other:
Students should review the introductory course of Financial Management which they had seen during the first module of Masters program. Students who wish to develop deeper into the topics are invited to consult the recommended reading list below.
UNEP Finance Initiative. 2009. Energy Efficiency and the Finance Sector, a Survey on lending activities and policy issues

Recommended reading
Books:
Albert Thumann and Eric A. Woodroof. 2008. Energy Project Financing. The Fairmount Press
Bruce Marcus. 2005. Competing for Capital: Investor Relations in a Dynamic World. Wiley Finance
Global Project Finance Yearbook. 2008. Standard & Poor's
John D. Finnerty. 2005. Project Financing: Asset-based Financial Engineering. Wiley Finance

Articles:
Christopher L. Culp and J. Paul Forrester. 2010. Structured Financing Techniques. Oil & Gas Project Finance
Jeffrey S. Muñoz. 2009. Financing of oil and gas transactions. Texas Journal of Oil, Gas and Energy Law
Mary Jean Bürer, Rolf Wüstenhagen. 2009. Which renewable energy policy is a venture capitalist's best friend? Empirical evidence from a survey of international cleantech investors. Energy Policy
Robert Gross et al. 2010. Risks, revenues and investment in electricity generation: Why policy needs to look beyond costs. Energy Economics
Shayle Kann. 2009. Overcoming barriers to wind project nance in Australia. Energy Policy

Other:

Ernst & Young. 2010. Renewable Energy Country Attractiveness Indices
Goldman Sachs Global Markets Institute. 2009. Alternative Energy: Prospects for Policy, Finance and Technology
Kirsty Hamilton. 2009. Unlocking Finance for Clean Energy: The Need for 'Investment Grade' Policy. Chatham House
Robert P. Taylor et al. 2008. Financing Energy Efficiency. Washington, D.C., The World Bank

Course outline

Project Finance & Evaluation
- Theory and practice of financing projects in the energy sector
- Role of understanding, analyzing and anticipating political, technical and economic risks when evaluating a project finance plan
- Project finance risk management techniques: contractual, operational, logistical…
- Assessing strategic economic, industrial investment decisions
- Illustration of the roles and interests of public, private and other stakeholders involved in a large energy project

Equity Analysis and Credit Rating
- Equity valuation techniques: DCF, proxy multiples, sum of parts
- Role of equity analysts in the capital markets and importance for the energy sector
- Fundamentals of credit scoring: how do banks and credit ratings agencies assess the credit-worthiness of companies. Examples from the energy sector.

Energy Industry Risk Management
- The Risk Management Process
- Risk mapping
- Risk mitigation
- Prevention
- Transfer
- Financing
- The Net Risk Exposure

Renewable Energy Project Financing
- Intro : 3 main actors and their respective goals
- Project Development
- Regulation
- Project Financing
- Construction
- Operations & Maintenance : quick overview
- Case Study

Computer-based tools

It's Learning, Presentations and Excel-based financial modeling

Learning process and workload

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

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:
- 50% Individual test
- 50% Case Study Group

This is a course with continuous assessment (several exam elements) and one final exam code. Each exam element will be graded using points on a scale (e.g. 0-100). The elements will be weighted together according to the information in the course description in order to calculate the final letter grade for the course.

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 82151 - Continuous assessment; accounts for 100 % to pass the program GRA 8215, 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

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