APPLIES TO ACADEMIC YEAR 2013/2014

GRA 8187 Corporate Energy and Climate Strategy

Programme
Executive MBA 2013/2014 - Energy track

Responsible for the course
Jørgen Randers

Department
Department of Accounting - Auditing and Law

Term
According to study plan

ECTS Credits
4

Language of instruction
English

Introduction
The goal of sustainable development has emerged over the last forty years as a increasingly important guide to policy formulation both at the global, national and corporate level. This trend is likely to continue over the next forty years, as human activity levels will press increasingly hard against the limitations of the planet. The emphasis in the sustainability journey does change over time, and currently the threat of global warming and the move towards renewable energy are central. Corporations are facing the need to formulate their own energy and climate policy, in a rapidly changing physical and legislative environment. And if they conclude that they do not need such policy, that decision should be explicit, well considered and based on knowledge about what others are likely to do. Clearly, managers need to understand climate change and the growth in renewable energy – the situation, the effects, the likely societal response and the opportunities they open.

Learning outcome
The intent of this course is to give the student an understanding of how climate change and growth in renewable energy are likely to evolve over the next several decades at the global and national level, and how this will influence business threats and opportunities.

Acquired knowledge:
Understand the role of climate change and more renewable energy on business environment of the future
Know the spectrum of possible responses to the dual challenge – know the possible “solutions to the problem”.

Acquired skills:
Ability to foresee likely developments in the climate and energy arena.
Ability to develop an energy and climate strategy.

Reflection:
Understand how the societal response to climate change and more renewables is the result of global players pursuing their short term interest in a physically constrained world
Understand the weakness of equilibrium thinking in a dynamic non-linear situation.

Prerequisites
Granted admission to the EMBA programme.

Compulsory reading
Books:
Goodstein, David. 2005. Out of gas. W.W.Norton & Co, New York. (130 p)
IEA. 2011. World Energy Outlook 2011. Executive Summary, Vienna. (11 p)
Randers, Jorgen. 2012. 2052 – A Global Forecast for the Next Forty Years. Chelsea Green Publishing House, Vermont. (part of 250 p)

Articles:
McKinsey & Company. 2009. Pathways to a Low-Carbon Economy. Summary and selections.
http://www.mckinsey.com/globalGHGcostcurve

Collection of articles:
Collection of short papers (80 p)

Compendium of papers

Other:
IPCC Working Group 1. 2007. The Physical Science Basis - Summary for Policy Makers. Geneva. (20 p)
IPCC Working Group 2. 2007. Impacts of Climate Change - Summary for Policy Makers. Geneva. (20 p)
IPCC Working Group 3. 2007. Mitigation of climate change - Summary for Policy Maker. Geneva. (20 p)
IPCC Working Group 3. 2011. Special Report on Renewable Energy – Executive Summary. Geneva. (30 p)
IPCC. 2007. Synthesis Report – Summary for Policy Makers. Geneva. (20 p)
UNEP. 2008. Kick the Habit. GRID Arendal. (part of 190 p)
UNEP. 2011. Green Economy Report – Summary for Policy Makers. (52 p)

Recommended reading
Books:
Flannery, Tim. 2010. Our Changing Climate and What it Means for Life on Earth. Text Publishing, Melbourne. 306 p

Course outline
The course spends one day on each of the following questions:

Day 1: The climate challenge
Day 2: The emergence of renewable energy
Day 3: Why are things so slow?
Day 4: Global progress – past and future

The course includes these lectures followed by classroom discussion:

The climate challenge
- causes, effects,
- solutions at the global, national and corporate level

The emergence of renewable energy
- renewables in the broad picture
- implications at the national and corporate level

Why things are slow
- Climate psychology

The history of sustainable development 1960 to 2010
- with emphasis on energy and climate

The future of sustainable development 2010 to 2050
- with emphasis on GDP, energy and climate

Progress in implementing global solutions
- or lack of such

Corporate energy and climate strategy in light of the big picture
- main elements
- cases: GE, Dow, BT

The green economy
- energy efficiency, renewable energy in a green perspective

The moral case versus the business case
- should you do something on your own?

In addition the students are split in groups of 5 to work on an energy and climate strategy for a chosen company. This includes answering the following questions:

Why should the company have an energy and climate strategy?
How much should it cost?
What should be the goal?
What are possible actions?
What are criteria for prioritization?
What does the priority strategy look like?

Computer-based tools
It's Learning

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

Lectures and sessions of student work will be intermixed to create variation and improve learning. During the course the students get the opportunity to make the first draft of their term paper, under guidance and with the possibility of advice from lectures and classroom discussion. Each group of students will be asked to give a short presentation of their work at the end of the course.

Examination
The students will be evaluated based on two papers:

- Term paper
(max 25 pages) written in groups of 4 students (will count 50 % of grade):
“An energy and climate strategy for a chosen company.”

- A well formulated essay
(max 5 pages) written individually (will count 50 % of grade):
“Why should a leading company in 2014 have an energy and climate strategy?”

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 81871 - Continuous assessment; accounts for 100 % of the final grade in the course GRA 8187; 4 ECTS credits

The course is a part of a full Executive MBA 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