

NHH



ENE – ENERGY, NATURAL RESOURCES AND THE ENVIRONMENT

PROFILE COORDINATOR METTE BJØRNDAL (METTE.BJORNDAL@NHH.NO)



ENE – ENERGY, NATURAL RESOURCES AND THE ENVIRONMENT

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- Different methods and approaches
- Focus on certain sectors where Norway has comparative advantages

- Energy and electricity markets
- Management of natural resources
- Environmental management and sustainable production
- Shipping and transport



OBJECTIVE

- The objective of the ENE profile is to educate the next generation of interdisciplinary leaders in the fields of energy, natural resources, sustainability and the environment.
- Future development and prosperity depends on access to energy and on reliable supplies of natural resources.
- Exploitation of such resources has significant impact on the environment and climate, and getting the balance right is critical in a world where sustainability is becoming more and more important.





SUSTAINABLE DEVELOPMENT GOALS





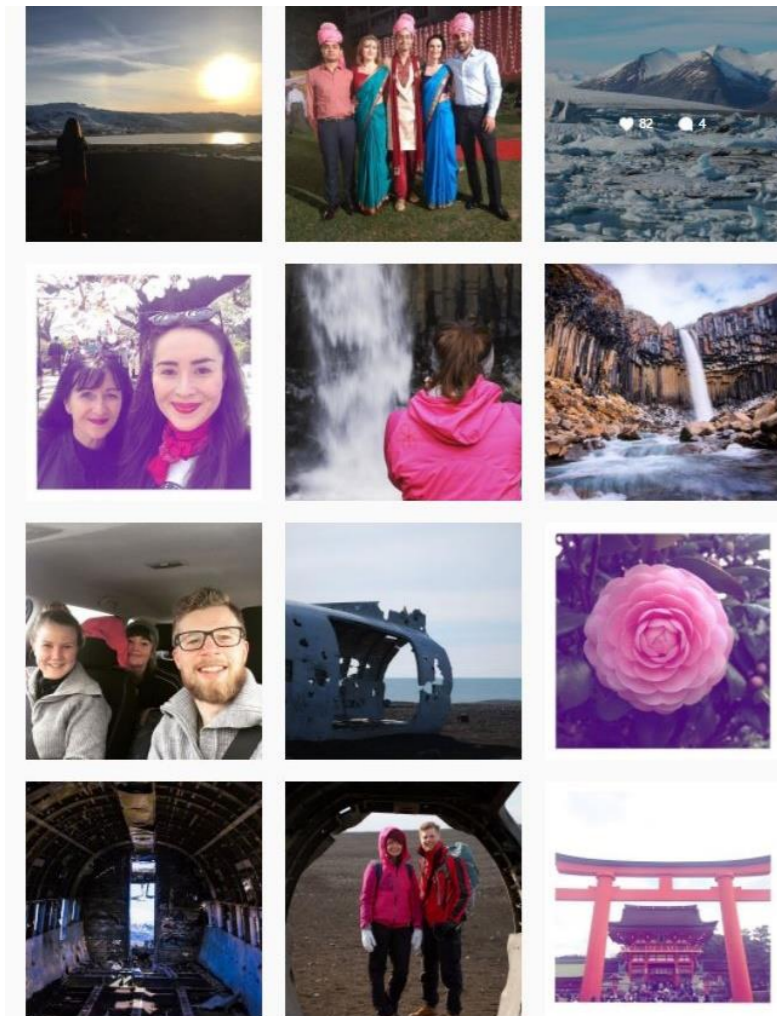
CAREER OPPORTUNITIES

- Particularly interesting job opportunities in the energy and resources sector, finance, consulting, media and communication, IT, public administration and with NGOs.
- The job opportunities are not limited to specific sectors. Sustainability has become a key concept in all industries, including Coca Cola, Google and the automotive industry. This is a general education in business economics.
- Candidates will also be well prepared to progress to doctoral studies.





INTERNATIONAL OPPORTUNITIES

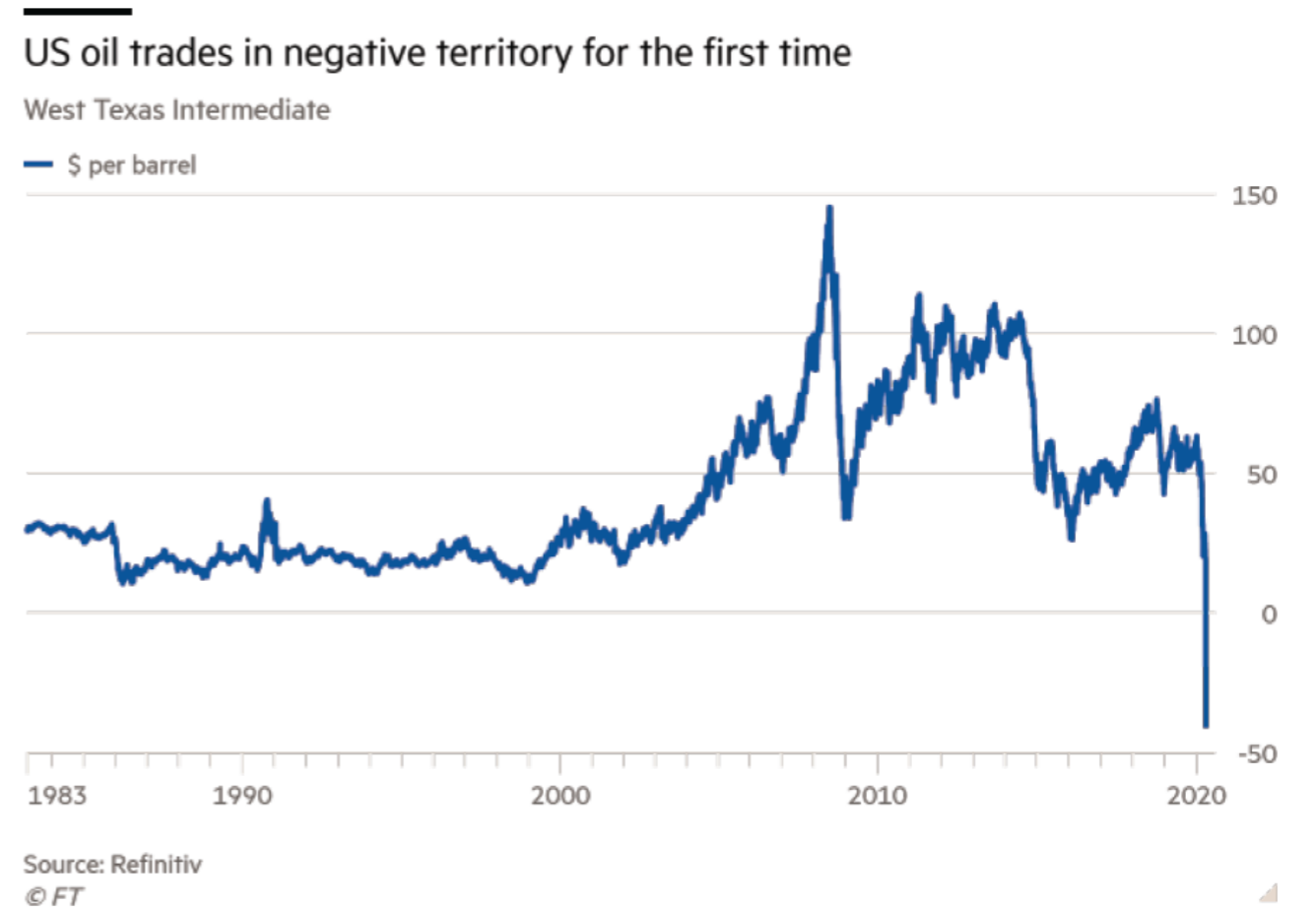
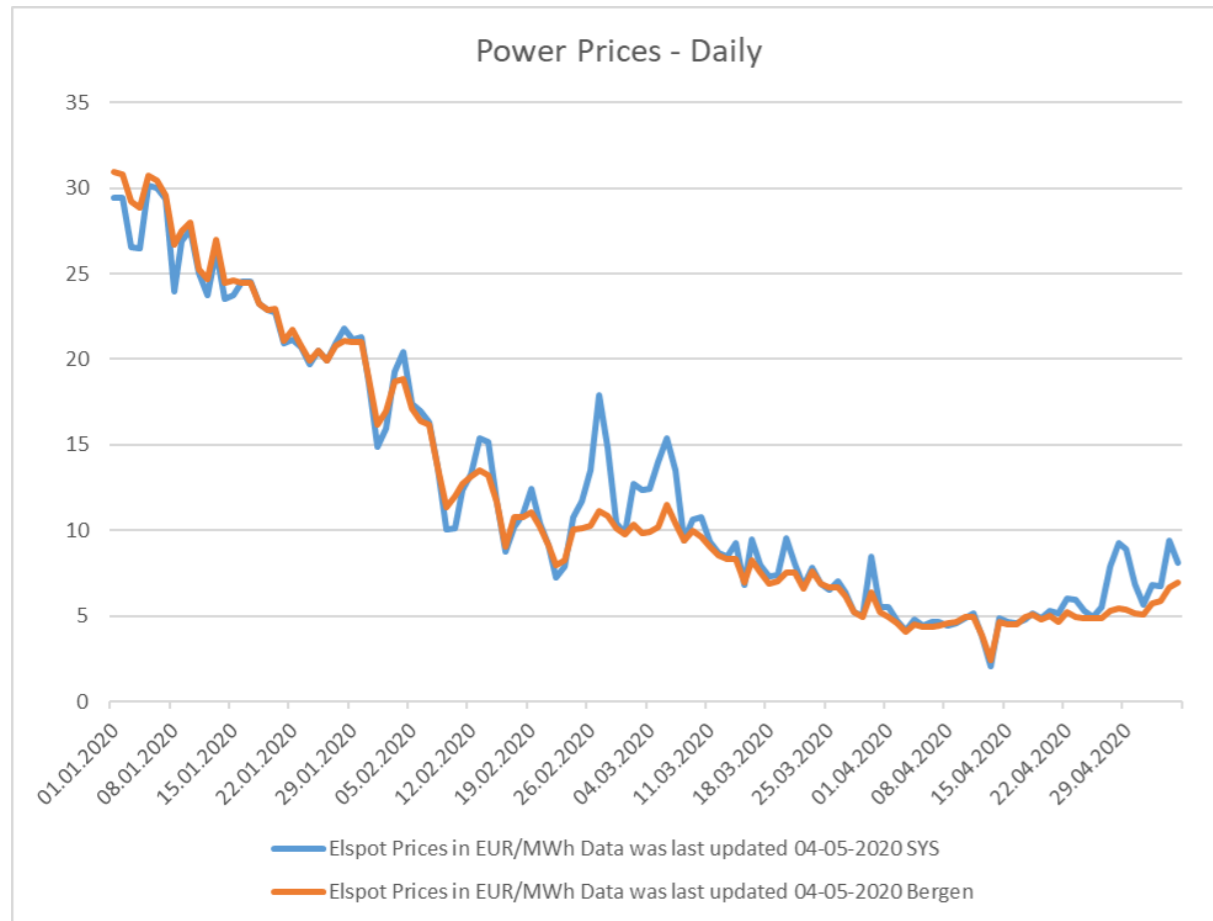


#nhhworldwide

- All teaching is in English.
- ENE has admitted students from all parts of the world, roughly 60% from Europe.
- The profile offers a global and interdisciplinary approach.
- After their time in Bergen students have proceeded with international careers.
- Fellow students form the basis for an international network of friends and colleagues that stays with them for life.
- Quite a few have got jobs in new small companies or have started their own companies.
- Can be combined with CEMS MIM and Double Degrees.



ENERGY PRICES IN STRANGE TIMES





SUBJECT AREA

- The ENE major broadly focuses on:
- Economic fundamentals of energy and natural resource value chains
- Strategic responses to more competitive energy and natural resource markets
- Interactions of business and government in commercial energy and natural resource development
- Environmental impact of business and government decisions



LEARNING OUTCOME

- You know theories, models and tools for analyzing energy and resource sectors and questions related to sustainability in any sector and industry.
- You can use this knowledge to choose appropriate methods when facing new challenges and to solve practical problems.
- You know methods and subjects necessary to understand, advance, and critique issues related to the interaction between humans and the environment.



INTERDISCIPLINARY FOCUS



- The focus is not on methodology but on topic/field/sector
- Methodological approaches:
 - Qualitative
 - Quantitative
 - Empirical
 - Theoretical
 - Modelling
 - Optimization
 - Financial markets
 - Management
 - Strategy
 - Market analysis
 - Studies of innovation and entrepreneurship



4 TRACKS



- Energy and Electricity

- Analysis of electricity markets and regulation
- Oil and gas
- Hydropower
- New renewable energy



- Natural Resources

- Management of natural resources
- Fisheries and aquaculture
- Forestry
- Minerals, oil and gas





4 TRACKS



- Environment, Climate and Sustainability

- Sustainable production and environmental footprint
- Management / policies / strategy
- Innovation and new business ideas



- Shipping and Transport

- Shipping economics and finance
- Analytics



COURSES AND TRACKS – SOME EXAMPLES



• Energy and Electricity

- ENE421 Energy and Resource Industries
- ENE424 Electricity Markets
- ENE425 Alternative Energy Sources in Physical, Environmental and Economical Perspectives
- ENE434 Energy Industry Analytics
- ECN420 Petroleum Economics
- BAN423 Seminar: Benchmarking with DEA, SFA, and R

• Natural Resources

- ENE421 Energy and Resource Industries
- ENE427 Land Use and Natural Resources
- ECN420 Petroleum Economics
- ECN429 The Economics of Aquaculture and Fisheries Management
- ECO429 Resource Economics

• Environment, Climate and Sustainability

- ENE421 Energy and Resource Industries
- ENE423 Economics of the Environment and Climate
- ENE425 Alternative Energy Sources in Physical, Environmental and Economical Perspectives
- ENE426 Economics of Climate Change
- BUS446 Sustainable Business Models
- FIE459 Sustainable Finance
- MBM432 Sustainable Marketing
- ETI450 Corporate Social Responsibility

• Shipping and Transport

- ENE421 Energy and Resource Industries
- ENE430 Commodity Trading and Transport
- ENE431 Shipping Economics and Analytics
- FIE460 Ship Finance and Marine Insurance



PROGRAMME STRUCTURE

- The programme consists of 12 courses and a thesis adding up to a total of 120 ECTS credits - 90 credits for the 12 courses and 30 credits for the thesis. Normally one would follow courses in three semesters and dedicate the final semester to the thesis.
- The general course plan for a major in the ENE specialization comprises:
 - Major: 45 ECTS credits of courses from the ENE specialization.
 - Minor: 22.5 ECTS credits from one of the other specializations or on exchange.
 - Elective: 22.5 ECTS credits from amongst all the MSc specializations at NHH including the major, minor or on exchange.



PROGRAMME STRUCTURE

In order to widen the range of relevant topics a series of seminars are offered. A seminar counts as 1/3 of a regular course. A combination of three seminars counts as a full course.

A seminar typically lasts one week and is given at the beginning or end of each semester.

One seminar can be replaced by an internship of a duration of at least one month in a company or an organization whose main activities are within the ENE sectors (ENEINT).

Topics given in seminars are subject to change in order to focus on current topics of interest and the availability of guest lecturers and available expertise.



MANDATORY COURSES

- It is mandatory to have at least one of the listed empirical methods courses
- It is mandatory to have at least one of the listed ethics courses



THESIS

- Through working on your thesis, you will develop your analytical skills and gain a deeper understanding of theoretical and/or empirical possibilities and challenges within your chosen field.
- Tutoring is mandatory.
- The thesis should be between 75 and 120 pages.
- You should cooperate with another student in writing your thesis. If there are special reasons for it, you can apply to write alone.

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ANY QUESTIONS ABOUT ENE?

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