



# HÖGSKOLAN I GÄVLE

## Energy Management 7.5 cr

*Energiledning 7,5 hp*

Set by Faculty of Engineering and Sustainable Development

### Version

**Set at**

**Valid from**

5/27/19

**HT2020**

<b>Level</b>	A1N
<b>Education level</b>	Second cycle
<b>Course identifier</b>	ETA006
<b>Credits</b>	7.5 cr
<b>Main field of study</b>	Energy Systems
<b>Subject group</b>	Energy Technology
<b>Disciplinary domain</b>	Technology 100.0 %

### Learning outcomes

After completion of the course the student shall be able to

1. describe and reflect on how decisions are made for the energy issue in companies and primary policies that affects this
2. describe and critically reflect the function of an energy management system in a company
3. describe LEAN and critically reflect on the connection to energy management
4. describe the function of and reflect on energy services and principal non-energy-benefits related to energy management and improved energy efficiency
5. state and reflect on leadership issues related to energy efficiency
6. analyze and evaluate how digitalization can promote energy efficiency and energy key performance indicators
7. communicate the results of their learning in the areas of the course in writing

### Course content

To provide knowledge concerning possibilities and limitations in the energy work of companies and organizations, in both today's and future energy system. The participant should enhance understanding how energy problems are transformed into energy demands among companies, both legally and socially, from customers, authorities and other parts of the society. Energy management systems will be critically analysed, as well as how LEAN can be related to improved energy efficiency and how advantages in company profile and profitability is gained through energy efficiency. The course will also provide an

idea/understanding of how the energy work will (can) be affected in a future as a result of among other things increased digitalization, and also deals with leadership aspects related to energy management.

The course regards:

Energy history, international and national energy work

Corporate energy efficiency work and its barriers and driving forces

Energy management, energy legislation, economic, informative and administrative policy instruments, stakeholder requirements and energy economy

Energy management system, energy studies, energy policy, energy goals, implementation, education and energy auditing and digitalization

Application of LEAN for energy systems, the link between LEAN and energy efficiency, leadership and communication

<b>Teaching</b>	Lectures, seminars and reading of literature. To a larger extent the course is given in the form of home assignment and tasks.
<b>Prerequisites</b>	English language proficiency equivalent to (the Swedish upper secondary school) English course 6/B. Degree of Bachelor of Science in technology or natural sciences 180 cr, or equivalent foreign degree, at least 12 cr of which involves studies in energy related fields or equivalent knowledge.
<b>Examination</b>	Written examination 0010 Written home examination 2 cr examines Learning outcomes 1-3, grades A-F. 0020 Written home examination 2.5 cr examines Learning outcomes 4-7, grades A-F. 0030 Written home examination 3 cr examines Learning outcomes 1-7, grades A-F.
<b>Grade</b>	A, B, C, D, E, Fx, F
<b>Other regulations</b>	Degree Criteria for final grade will be given by the course responsible or examiner latest at the beginning of the course.
<b>Sustainable environment</b>	The majority of the course content deals with sustainable development..
<b>Module</b>	
	0010 Written home examination 2 cr Grade: AF
	0020 Written home examination 2.5 cr Grade: AF
	0030 Written home examination 3 cr Grade: AF