



HÖGSKOLAN I GÄVLE

Energy Resources 7.5 cr

Energiresurser 7,5 hp

Set by Faculty of Engineering and Sustainable Development

Version

Set at

Valid from

10/30/18

HT2019

Level	G1F
Education level	First cycle
Course identifier	ETG307
Credits	7.5 cr
Main field of study	Energy Systems
Subject group	Energy Technology
Disciplinary domain	Technology 100.0 %

Learning outcomes After completion of the course, the student shall be able to

1. present how energy raw materials are transformed into electric energy and heat
2. present different renewable energy types and their possibilities and problems
3. describe a general account of electricity production and the electricity market
4. describe the structure of a district heating system, including its theory, technology and function.

Course content Production plants such as combined power and heating plants
District heating systems, distribution, different heat transfer media and pipe systems, and subscriber installations
Various types of renewable energy, such as solar energy, wind energy, biogas, biofuels and their system and environmental aspects
External costs, policy instruments, the resource concept

Teaching Lectures, seminars and study visits

Prerequisites Introduction to Environmental Engineering 15 credits, or equivalent

Examination Written examination, project work and an assignment
0010 Written examination 3,5 credits examines Learning outcomes 1, 2, 3, 4, grades A-F.

0020 Project Work 3 credits examines Learning outcomes 1, 2, 3, grades Pass, Fail.
0030 assignment 1 credits examines Learning outcomes 1, 2, grades Pass, Fail.

Grade A, B, C, D, E, Fx, F

Other regulations Criteria for final grades are announced by the co-ordinator or examiner at the beginning of the course

Sustainable environment The majority of the course content deals with sustainable development..

Module

0010	Written examination	3.5 cr	Grade: AF
0020	Project work	3 cr	Grade: UG
0030	Assignment	1 cr	Grade: UG