

Curriculum 2016-2017

Major studies (60 cr)

(Common & Advanced)

Master's thesis (30 cr)

Elective studies (30 cr)

Courses in Energy Technology are offered under three topic groups, which lead to different type of career specializations: Heat and Power Processes; Energy Systems for Industry and Communities; and Building Energy and HVAC Technology.

Students may freely combine courses from different topic groups, as long as course specific prerequisites are followed.

Advanced courses of Heat and Power Processes provide students in-depth expertise in the technical and environmental aspects of power generation, fuel conversion and heat transfer. There is a possibility to focus on computational methods too. This topic group also covers bioenergy, combustion and heat energy and gives abilities for a wide range of careers after graduation.

Advanced courses of Energy Systems for Communities and Industry provide students in-depth expertise in the technical, economic and environmental aspects of energy systems and energy markets, their simulation and planning. This topic group covers energy engineering, simulation and planning for both energy-intensive industries and communities/society. Students are given abilities for a wide range of careers after graduation.

Advanced courses of HVAC introduce students the criteria of indoor climate and technical systems for heating, cooling and ventilation. Special emphasis will be put on energy simulation and optimization methods. HVAC courses give students the ability to design building services for heating, cooling and ventilation with regard to indoor climate and energy consumption.

For the qualification of a designer-in-charge of exceptional demanding ventilation projects in Finland you need to complete 40 cr of related courses (8 x 5cr). The requirement can be fulfilled by taking all the seven courses from the Building Energy and HVAC Technology. The eight course is the compulsory Common studies course EEN-E1040 Measurement and Control of Energy Systems.

Suggestions for how to select courses in order to form a meaningful study path are given by professors of the programme. For choosing courses according to your career and scientific interests, please consult the **study paths**.