LX00DQ18 Technologies in energy production and storage (3 cr)

Validity dates
1.8.2024 -

Responsible persons
Antti Haapala

Study type
Advanced Studies

Subjects
Sustainable technologies

Teaching language
English

Accomplishment language
English

Learning outcomes
After completing the study unit, the student has information about the demand for energy products on the global market, industrial production and storage of energy, operating principles of production technologies, key challenges of efficiency, operational reliability and operational sustainability aspects, as well as new technologies in the development stage for this industry. The student understands the key technical and sustainability-related terminology of the field. The course emphasizes the treatment of sustainable energy technologies.

The course develops the following generic skills: ethics, sustainability and responsibility, critical thinking, identifying and developing one's own expertise, interaction and communication.

Contents
Lectures, company presentations, seminar work and its presentation. Energy production legislation; Industrial terminology; Energy production processes; Energy products; Energy storage; Sustainability aspects of energy production; Energy production emissions.

Study methods and evaluation criteria
Examination 50% of the grade. Approved seminar assignment, 50% of the grade.

Teaching methods
Contact teaching, in some lectures the possibility of multi-format implementation. Lectures approx. 16 hours, independent study and seminar work 57 hours. Seminar 8 hours.

Learning material
The learning material is given during the course in the Moodle eLearn environment.

Further information
Organized annually, spring term. Lectured in English.

Evaluation scale

Five step scale