M. Sc. Renewable Energy and Electrical Power Engineering study structure Winter 2024/25 19.03.2025

1. Semester (Winter)	2. Semester (Summer)	3. Semester (Winter)	4. Semester (Summer)
core studies & c	elective courses Finland S in total	elective courses LUH, Germany 30 ECTS in total	master's thesis LUH, Germany 30 ECTS
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Č, U	UT niversity	Universität  1004 Hannover	

September 2025 to May 2026

Oktober 2026 to September 2027

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### Double Degree - Renewable Energy and Electrical Power Engineering RE<sup>3</sup>

### Core studies at LUT, Finland, 37 ECTS

Electrical Machines

**Electromagnetic Components** 

Energy and Society

Energy Efficiency

Introduction to M.Sc. Studies

Power Plant Design

Renewable Energy Technology

### Elective Courses at LUT, Finland, students can choose one of three specifications with min. 24 ECTS:

(2) Electrical Engineering

#### (1) Energy Technology

**Energy Systems Engineering** 

Advanced Topics in Modelling of Energy

Systems

systems

Electrical Engineering in Wind and solar

**Energy Carriers** Energy Resources

Electrical Power Transmission **Energy Economics Energy Economics** 

Energy Resources Laboratory course in electrical power

engineering

Technologies for Electrochemical Energy Fluid Machinery conversion and storage of electricity Thermal Design of an Electric Device Heat pumps

### (3) Energy Technology and Electrical Engineering

Advanced Topics in Modelling of Energy Systems

Electrical engineering in wind and solar systems

Electrical Power Transmission

**Energy Carriers** 

**Energy Economics** 

**Energy Resources** 

Energy Systems Engineering

Fluid Machinery

Heat pumps

Laboratory course in electrical power

engineering

Technologies for Electrochemical Energy conversion and storage of electricity

### Elective Courses at LUH, Germany (5 credits for each course)

Electric Machines and Drives (2/3) Electrical Energy Storage (1/2/3)

Electrical Machines for eAutomotive

Traction Applications (2/3)

Electrothermal Processing (1/3)

Power Electronics (2/3)

Project work (1/2/3)

Studium Generale (1/2/3)

Sustainability Assessment (1/2/3)

Sustainable Combustion (1/2/3)

Technical Asset Management (1/2/3)

more information regarding course

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Course catalogue at LUT, Finland

Course catalogue LUH, Germany