

CURRICULUM FOR TRILATERAL PROGRAM ENERGY TECHNOLOGY

1st semester (30 credits) – Lappeenranta University of Technology (Finland)

- Turbomachinery (4 ECTS)
- Academic Writing in English (4 ECTS)
- Numerical Methods in Heat Transfer (6 ECTS)
- Power Machines in Renewable Energy (5 ECTS)

Elective Courses:

- Energy Systems Engineering (6 ECTS)
- Bioenergy (3 ECTS)
- Nuclear Engineering (6 ECTS)
- Maintenance Management (4 ECTS)
- Steam Boilers (6 ECTS)
- Basic Course on Environmental Management and Economics (5 ECTS)
- Advanced Topics in Modelling of Energy Systems (6 ECTS)
- Design of an Electrical Machine (6 ECTS)

see course details on: <https://www.lut.fi/web/en/admissions/masters-studies>

2nd semester (30 credits) – Peter the Great St. Petersburg Polytechnic University (Russia)

- History and Philosophy of Science (2 ECTS)
- Modern Energy Problems (2 ECTS)
- Thermal Power Plants (6 ECTS)
- Modes of Operation of Thermal Power Plants (4 ECTS)
- Energy Efficient HVAC Systems (3 ECTS)
- **Group A (4 ECTS):** Energy Efficient Buildings and Structures or Energy Audit of Buildings and Constructions
- **Group B (4 ECTS):** Renewable Energy: Resources and Technologies or Modeling of Vaporization Processes
- **Group C (5 ECTS):** Energy Systems Engineering or Bioenergy Technology Solutions

see course details on: <http://english.spbstu.ru/education/programs/double-degree-programs/energy-technology/>

3rd semester (30 ECTS) – Leibniz University of Hanover (Germany)

- Practice Related Topics on Power Plant Technology (4 ECTS)
- Thermodynamics of Mixed Flows (4 ECTS)
- Combustion Technology (4 ECTS)
- Electrical Machines and Drives
- Power Electronics
- Electrical Supply Systems
- Electrothermal Processes

See course details on: <https://www.dbs.uni-hannover.de/et-inf/modkat/lvk/lvliste.php> (choose Master Energietechnik / Modulgruppe Energy Technology (Semester WS 2019/20))

4th semester (30 ECTS)

- Scientific and Research Work. Master Thesis Completion. Final Examination (30 ECTS)

The master thesis will be written at the home university. The thesis must be defended. The defensive must be attended by academic staff of all three partner universities. The primary supervisor should be from the institution where the master thesis is performed. The secondary supervisors should be from the other two partner universities.