

MENGSC (SUSTAINABLE ENERGY)

Programme Learning Outcomes

Programme Learning Outcomes for MEngSc in Sustainable Energy (NFQ Level 9, Major Award)

On successful completion of this programme, students should be able to:

- Apply concepts and the theoretical basis from engineering sciences to problems in sustainable energy and related disciplines;
- Identify, formulate, model and design sustainable energy systems, components and processes;
- Design, analyse, and re-engineer sustainable energy engineering systems, components, and processes with an emphasis on renewable energy technologies and sustainable energy end use;
- Evaluate critically the engineering, economic, environmental, societal, and legal impacts of complex sustainable energy systems by applying design, analysis and modeling in a holistic way;
- Plan, conduct, manage and document sustainable energy R&D-projects including data management and analysis, energy systems design, and aspects of interdisciplinary information exchange;
- Communicate effectively with the engineering community and the engineering society through the appropriate application of IT-supported communication and presentation tools and the collective development of scientific publications;
- Plan conduct and manage a significant research project in sustainable energy and produce a dissertation to communicate the results.