

# ME (ENERGY) ENGINEERING

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## Programme Learning Outcomes

**Programme Learning Outcomes for ME (Energy) (NFQ Level 9, Major Award)**

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

- Systematically apply advanced knowledge from mathematics, science and engineering to solve complex and/or unbounded problems in Energy Engineering;
- Apply information technology and software development techniques to visualise, analyse and solve a broad range problems in Energy Engineering to an advanced level;
- Demonstrate the ability to adjust, self-evaluate and critically alter practice in response to evolving project requirements;
- Design components and systems to the standard required of a professional engineer demonstrating logical thinking and imaginative skills to provide the most appropriate solution;
- Critically evaluate the engineering, economic, environmental and societal impacts of proposed solutions;
- Critically evaluate published work at the forefront of the field in the context of a particular engineering solution;
- Work effectively as an individual, in teams and in multi-disciplinary settings with the ability to appropriately plan and meet the role responsibilities, including leadership qualities;
- Communicate effectively engineering-related information and the results of one's own work (in both oral and written form) while demonstrating appreciation of the expertise of the target audience;
- Demonstrate knowledge and understanding of the need for high ethical standards in their professional practice of engineering to the standards expected of a Chartered Engineer.