

# MENGSC (ELECTRICAL AND ELECTRONIC ENGINEERING)

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## Programme Learning Outcomes

Programme Learning Outcomes for MEngSc (Electrical and Electronic Engineering), NFQ Level 9, Major Award

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

- Apply principles from mathematics, science and engineering to solve problems in electrical and electronic engineering and in the related disciplines of microelectronic and mechanical engineering at an advanced level;
- Apply information technology to visualise and analyse problems in electrical and electronic engineering and in the related disciplines of microelectronic and mechanical engineering at an advanced level;
- Identify, formulate, analyse and solve engineering problems;
- Design components and systems to the standard required of a professional engineer, demonstrating logical and lateral thinking to provide the most appropriate solution;
- Critically evaluate the engineering, economic, environmental and societal impacts of proposed design solutions using the technical literature to inform their opinions;
- Work effectively as an individual and in teams with the ability to appropriately plan;
- Undertake a substantive individual engineering project and produce a detailed dissertation objectively describing and discussing the outcomes, and critically evaluating published work in that context;
- Communicate effectively engineering-related information and the results of one's own work (in both oral and written form), demonstrating appreciation of the expertise of the target audience;
- Maintain high ethical standards in their professional practice of engineering to a standard consistent with that of a Chartered Engineer.