

# POSTGRADUATE DIPLOMA IN MECHANICAL ENGINEERING (MANUFACTURING, PROCESS AND AUTOMATION SYSTEMS)

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## Programme Learning Outcomes

**Programme Learning Outcomes for Postgraduate Diploma in Mechanical Engineering (Manufacturing, Process and Automation Systems) (NFQ Level 9, Major Award)**

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

- Demonstrate a thorough understanding of the principles and theoretical bases of modern manufacturing techniques, automation, and production processes;
- Identify appropriate manufacturing systems for different production requirements, and describe their performance using appropriate analytical and modelling methods;
- Apply appropriate technology, quality tools and manufacturing methodology to design, re-design and continuously improve the manufacturing operations of engineering companies;
- Plan, research, execute and oversee experiments and research projects, critically analyse and interpret data, and effectively disseminate the results;
- Work effectively as a member of a multidisciplinary team, be self-motivated and able to work independently, and demonstrate leadership;
- Communicate effectively, via appropriate presentation techniques and technical publications, to other engineers, professionals, and society at large;
- Understand the role of the mechanical engineer in society and his/her responsibility for ethical, environmental and safety issues.