

**UNIVERSITY OF MAURITIUS  
FACULTY OF ENGINEERING**



**Mechanical & Production Engineering Department**

***Overview of the BEng (Hons) Manufacturing Engineering Degree Programme***

**Introduction**



*A computerized Vertical Milling machine*

Manufacturing engineers make things. Everything that manufacturing engineers do is ultimately tied to the production of goods. Almost everything that we use at home, at work, at play is manufactured. By its official professional definition, manufacturing occurs when the shape, form or properties of a material are altered in a way that adds value to it. Manufactured goods are everywhere—aircraft structures, machinery, electronic parts, medical devices, automobile parts, household products, toys, textiles and clothing, cans and bottles, virtually everything we use.

**The Profession**

Manufacturing engineers earn their living by making decisions—about technology, machinery, people and money. They make those decisions from a background of knowledge of mathematics and scientific principles, of people and organizations and of the processes and machinery required to produce high-quality goods, when people want them and at an affordable price.

Manufacturing engineers often work in concurrent engineering teams for launching production of new products. In this environment, they work in partnership with mechanical and electrical design engineers, applications engineers and marketing specialists, purchasing agents and supply chain managers, human resources specialists, accountants and financial managers. All of these occupations within a business enterprise support the production of the company's products. The manufacturing engineer is the final link. Manufacturing is where the action is.

**Job Opportunities**

The manufacturing engineering graduates can find job opportunities in various fields such as product design, project management, maintenance, quality control, production control and planning, logistics management, and sales engineering.

## The Programme

The BEng (Hons) Manufacturing Engineering programme at the University of Mauritius is a four year programme, and is intended to impart to prospective students the fundamentals of manufacturing engineering. The degree programme comprises both theory and laboratory sessions designed to enable students to develop skills needed in the practice of the profession. The programme is broad-based to ensure job opportunities in various sectors, namely government, parastatal or private institutions/enterprises upon successful completion of pre-registration training to the status of professional engineer.

The programme curriculum is made up of two parts: fundamental engineering & mathematics and specialized studies. The fundamental engineering sciences include solid mechanics, dynamics, thermodynamics, fluid mechanics, electronics, engineering graphics and computer programming. The specialized studies for Manufacturing engineering include manufacturing process engineering, metrology, metallurgy, tribology, computer aided engineering, operational research, automation and robotics, reliability engineering, safety engineering, quality systems, industrial marketing, supply chain management. Moreover, as part of the programme of studies, all students have to complete a minimum of twenty weeks of industrial training.

## Faculty and Facilities

The Manufacturing Engineering programme is run by the Mechanical and Production Engineering (MPE) Department at the Faculty of Engineering. The MPE Department has eight faculty staff who have experience in mechanical, manufacturing and industrial fields. Undergraduate students will complete a portion of their learning in seven well-equipped laboratories, which include Computer Aided Design & Computer Aided Manufacturing, Metrology, Metallurgy, Structural Mechanics, Thermodynamics, Fluid Power & Drives.



*A Gryphon Robot performing pick and place operations.*

## Programme Requirements

2 GCE 'A' Level Passes in Mathematics and one of the following subjects: Physics, Physical Science, Engineering Science, Physics with Chemistry, Design & Technology (Technology).

***For more information on the department, details about the programme, laboratory facilities, etc, please visit our webpage at the following address:***  
<http://www.uom.ac.mu/Faculties/foe/MPE/default.asp>