

# INTRA Programme

## B.Eng Manufacturing Engineering with Business Studies



The **Objective** of this four-year, full-time degree is to produce graduates who:

- Have an understanding of the nature, uses and limitations of Engineering materials, both electronic and mechanical
- Have a practical understanding of the development of products and processes and related commercial issues
- Are able to relate the principles of Engineering, Mathematics and Computing, and to develop an understanding of their limitations for Engineering practice
- Are fully conversant with computer based tools and are able to design, simulate, manufacture and control professional equipment, processes and systems
- Have the ability to communicate Engineering concepts and ideas by oral, written and graphical means and to assimilate, interpret and evaluate information from a wide range of sources including IT based systems
- Have an awareness of the position of professional Engineers in society and of the social and environmental implications of technological decisions.

### Programme Outline:

This degree programme is concerned with the design, manufacture, commissioning and marketing of engineering products, manufacturing processes and systems. Emphasis is placed at each stage on the translation of these core activities into actual business opportunities.

Having gained a thorough fundamental knowledge of Mechanical Engineering, Electronics and Computer Science in First Year, students progress in Years 2 & 3 with advanced specialist modules in Engineering, coupled with modules in Marketing, Economics, Accounting, Management and Languages. Practical skills are gained through intensive project based laboratory work. In their final year, students have a suite of modules to choose from, so allowing the development of specialist areas.

**Relevant Work Experience** through DCU's work experience programme INTRA (INtegrated TRaining) is a central feature of education at DCU and an integral part of most undergraduate and some postgraduate degree programmes. Students from the B.Eng Manufacturing Engineering with Business Studies are required to complete an eight month *INTRA* placement at the end of third year, from February to September inclusive.

### Work Areas

Students from the B.Eng Manufacturing Engineering with Business Studies will have the ability to work in the following areas within a wide range of Manufacturing Industries:

- Product/Process Engineer
- Project Engineer
- Manufacturing Engineer
- Market/Technical Sales Engineer
- Operations Management Engineer
- Systems Analyst Engineer

### Student Availability

Students are available for interview from early October. Please post vacancies on the *INTRA on line* web site at [www.intra.dcu.ie](http://www.intra.dcu.ie), or send details to:

INTRA Unit, Student Affairs,  
Dublin City University,  
Glasnevin, Dublin 9, Ireland.  
Phone: 00 353 1 700 5033 Fax: 00353 1 700 5505  
Web: [www.intra.dcu.ie](http://www.intra.dcu.ie)

## B.Eng MANUFACTURING ENGINEERING with BUSINESS STUDIES

Year 1	Year 2	Year 3	Year 4
Engineering Mathematics	Engineering Mathematics	Probability & Engineering Statistics	New Enterprise Development I or Strategic Management
Materials Science & Processing Technology	European Language French or German	European Language French or German	New Enterprise Development II or Strategic Management & Investment Appraisal
Applied Mechanics	Economics	Law	Intro To HRM or European Language
Electronic Eng. Fundamentals	Accounting	Power Hydraulics & Pneumatics	Project
Integrated Studies Workshop & Eng. Drawing	Marketing	Manufacturing Processes	Instrumentation & Measurement
Engineering Computation	Management	Operations Research	Project Management
Technology & Society	Strength & Failure Material	CAD/CAM	Principle of Control & Manufacturing Automation
Waves & Optics	Manufacturing Technology		Manufacturing Operations Management
Thermofluid Mechanics	Manufacturing Systems		Basics Of CIM
Circuit Theory	Operations Research		Manufacturing Processes in Industries
CADD	Design & CAD		Manufacturing in Electronics & Computer Industries
Options: Basic Engineering Principles Electro-Mechanic Devices			

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