

Master of Engineering Management

# Introduction

in 2009 to replace the long established Master of Industrial Engineering (MIE) degree. The MIE degree was established in UCD in 1967 and the first graduates were conferred two years later. In its 40 year existence, the MIE programme saw many graduates emerge who adopted leading roles in Irish enterprises. The MIE continually evolved over the years, maintaining its relevance in a very fast changing world. To reflect the wide scope of the degree programme, the title of the degree was changed to Master of Engineering Management, ME (Mgmt). Since 2011, graduates of the programme are awarded this degree. It focuses, like its predecessor, the MIE, on linking engineering with management and business topics to produce graduates who quickly move into leadership positions within their companies.







# Programme Vision & Values Statement

## Purpose

Designed for professionals with three to five years of industry experience and a background in engineering, technology, science or mathematics, this two year parttime programme is for individuals with the ambition to progress to senior management and leadership roles in global engineering and technology enterprises.

### Values

We aim to develop technically oriented leaders and therefore encourage our students to be critical thinkers, creative problem solvers, to communicate in the language of business and move from thinking tactically to thinking strategically, while always cognisant of the economic, environmental and social implications of their actions.

# Nature of the learning environment

The nature of the learning environment is highly collaborative and experiential. The part-time nature of the programme allows participants to continue in employment and to quickly apply their newly acquired skills in an experiential manner. Through the discussion based classroom environment, there is a high degree of learning from peers across different industry sectors and organisation types.

# Key approaches to teaching, learning and assessment

We seek to develop an active learning approach through lectures, seminars, workshops and projects. There is extensive use of case studies and business simulations. There is a strong orientation towards team work and collaborative industry based assignments.



I was looking to progress my career, and for a course that would enable me to bridge the gap between engineering and senior management. An engineer's approach to problem solving is very well regarded in the business world, and this course builds on those strengths while developing the other business skills required.

Just as important, the lecturers on the course come from industry, therefore providing real world application of the financial and professional theory covered. This course without doubt played a direct role in my career development.

Cathal Cavanagh





# Programme Outcomes

### Knowledge

Enhance your ability to operate at the highest level in the global knowledge economy by taking the Master of Engineering Management degree. It will allow you to draw on engineering, business and human sciences in a programme designed to bridge the divide between engineering and business.

### Skills

Focus on building skills as a pathway to career success. In addition to course learning in operations and engineering management, interaction with your peers from a range of engineering disciplines assists in building your breadth of knowledge.

#### Business

Gain a deep understanding of the world of business by covering a wide range of business topics from the functional to the strategic.

### People

Learn best practice in human and organisational behaviour. People management remains the key to improving organisational effectiveness.

## Analysis

Sharpen your analytical skills with a view to improved decision making.

### Innovation

Equip yourself to deal professionally with the challenging areas of innovation and technological development.



course to anyone interested.

Martina Moyne Nypro Healthca





# Programme Structure

#### Lectures

The Master of Engineering Management degree programme takes place over two academic years (four academic semesters). Semesters each year are from mid September to mid-December and mid-January to early May. There is an average of nine hours of lectures per week on Friday afternoons and evenings and Saturday mornings.

## Learning Process

The learning process consists of formal lectures augmented by project work, case studies and other class assignments. The variety of backgrounds and experience of our students stimulates class interaction and peer learning.

### Modules

Over the two years of the programme, a total of 18 modules are taken from the listing to the right, nine modules per academic year. In the second year students have the option of completing an applied work related project instead of three individual modules.

#### Operations

Operations Management
Quality Management
Project Management
Business Systems Design
Business

Engineering Cost Analysis Marketing Finance Economics

#### Analysis

Engineering Statistical Analysis Decision Analysis

#### People

Behaviour, Leadership and Change Managing Human Resources Managing Negotiations Technical Communications

### Strategy

Global Strategic Management Operations Strategy Design and Innovation



personal growth.

Maria Hayden





# **Participants**

Rottapharm

Over the years, students from a variety of professional backgrounds have participated in the MIE and MEM programmes. Engineers of all disciplines, science and information technology graduates from all the academic institutions within Ireland and several from overseas have taken part. The company backgrounds of those participating in recent years illustrates the diverse professional backgrounds of students.

| MedTech & Pharma      | Schering Plough     | Maxim Integrated       | Unilever                 | Kildare County Council      | Mercury Engineering        |
|-----------------------|---------------------|------------------------|--------------------------|-----------------------------|----------------------------|
| Abbott Medical Optics | Screentech          | Siemens                | Wavin                    | South Dublin County Council | Project Management Group   |
| Abbvie                | Servier             | Thermawave             | <u></u>                  | Mater Hospital              | Pratt and Whitney Aviation |
| Pharmaceuticals       | Siemens             | Xerox                  | Public services          | ComReg                      | O'Connor, Sutton, Cronin   |
| Allergan              | Swords Laboratories | Xilinx                 | Defence Forces           |                             | O2                         |
| Amgen                 | Takeda              | Valeo Vision Systems   | Department of Transport  | Engineering services        | SR Technics                |
| Bausch & Lomb         |                     |                        | Dublin Bus               | AABB                        | Standard Control Systems   |
| Becton Dickinson      | ICT                 | Other manufacturing    | Dublin City Council      | BOC Gases                   | Veolia                     |
| Biotrin               | BT                  | Bose                   | Enterprise Ireland       | DPS                         | Alstom                     |
| Braun, Oral B         | Data Exchange       | Burnside               | Eirgrid                  | EarthTech                   | Mott MacDonald             |
| Boston Scientific     | Ericsson            | CRH                    | ESB                      | GEA Process Technologies    | Open Hydro                 |
| Bristol Myers Squibb  | Europe              | Diageo                 | ESBI                     | Grundfos                    | Roadbridge                 |
| Centor Biologics      | Honeywell           | Dromone Engineering    | Irish Aviation Authority | Hugh Munro & Co             | Ţ,                         |
| Leo Laboratories      | Hewlett Packard     | Henkel                 | Mayo County Council      | Kone                        |                            |
| Leo Pharma            | IBM                 | Irish Cement           | Meath County Council     | McArdle McSweeney           |                            |
| Nypro Healthcare      | Intel               | Kingspan Environmental | Tallaght Hospital        |                             |                            |
| Pfizer                | Lucent              | Renley                 | Irish Rail               |                             |                            |

Air Accident Investigation Unit

Marconi

Renley Smith's Detection







# Eligibility

We welcome applications from candidates with a primary degree in Engineering, Technology, Science or Mathematics (STEM).

Typically participants will have 5 years industry experience since graduation. Participants are selected after an interview.

## Enquiries

If you require further information, please contact:

#### Dr. Vincent Hargaden

MEM Programme Director Tel: +353 1 716 1725 Email: vincent.hargaden@ucd.ie

### Ms Agnieszka Wisniewska

MEM Programme Administrator
Tel: +353 1 716 1757

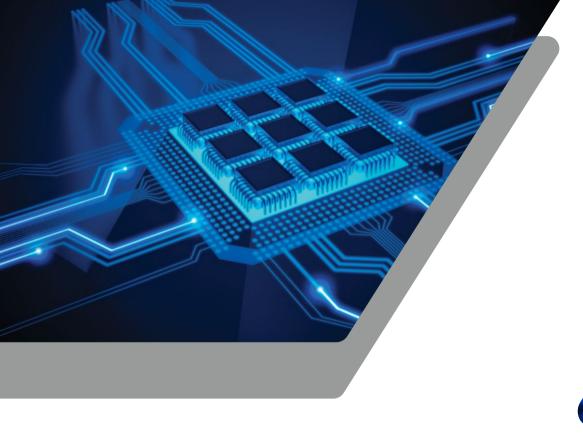
#### Ms Katie O'Neill

Email: mem@ucd.ie

Marketing Manager, UCD College of Engineering & Architecture Programme Office

Tel: +353 1 716 1781 Email: katie.oneill@ucd.ie









# **University College Dublin**



+353 1 716 1781 eamarketing@ucd.ie



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