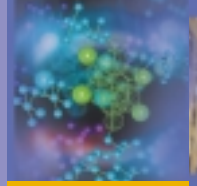

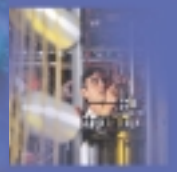

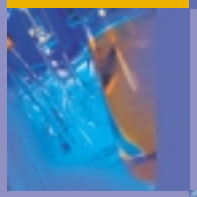

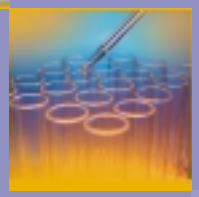

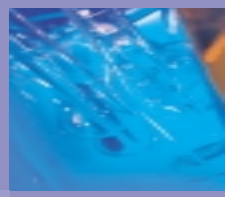

Postgraduate Diploma/MSc in Pharmaceutical and Chemical Process Technology

Further information

Secretary.
School of Chemistry.
DIT.
Kevin Street.
Dublin 8.

Tel: 01 4024572.
Fax: 01 4024989'



Introduction

This programme is designed to provide students with a knowledge and understanding of aspects of chemical and pharmaceutical process technology so that they can apply the skills developed in the course and operate effectively in the areas of chemical development, process development and design, scale-up, technology transfer to production and process operation. It is intended for graduates in scientific or engineering disciplines who work or intend to work in the chemical and pharmaceutical sector.

Content

The course is delivered through lectures, practical work, case studies and tutorials. The programme consists of seven modules. Modules 1 - 4 incorporate a laboratory or practical element. Each module incorporates a number of related topics.

Modules

Module 1

Chemical and pharmaceutical processes
Mass and energy balances in chemical processes
Mass transfer applications
Heat transfer and heat exchangers

Module 2

Distillation processes
Liquid/liquid extraction processes
Adsorption processes
Absorption processes
Reactor operation and design

Module 3

Fluids
Drying
Filtration
Crystallisation
Particulate solids technology
Membrane separation processes
Large scale chromatography

Module 4

Process control systems
Process utilities
Materials handling
Process Safety

Module 5

Process development and design
Environmental management
Waste management
Environmental legislation

Module 6

Process validation
Pharmaceutical quality assurance
Pharmaceutical regulatory aspects
Project management
Process economics

Module 7

Project


Duration

One year full-time or two years part-time. The part-time programme will operate on a 2 year cycle.

General course structure and organisation.

The lecture programme is divided into six modules. Full-time students will undertake the six modules over two academic terms. Part-time students will undertake the six modules over four academic terms. Full-time students will have on average approximately 12 contact hours per week comprising of lectures, practical sessions and tutorials. Part-time students will have on average approximately 6 contact hours per week (two evenings) over the duration of the course. Students who successfully complete the course assessments without completing the dissertation, will be awarded a Postgraduate Diploma in Pharmaceutical and Chemical Process Technology. Students will be awarded an MSc in Pharmaceutical and Chemical Process Technology on successful completion of an industry based/work based project and dissertation. Part-time students will normally be expected to carry out the project at their place of employment. Full-time students must complete an industry sourced project over the summer term.

Mode of assessment

The modes of assessment are written assignments, practical work and written project dissertation.

Entry requirements

BSc (Hons) in a scientific or engineering discipline or equivalent qualification. Applicants for the part-time programme should be employed in a relevant industrial sector. Selection of candidates may be by interview.

Award

On successful completion the following awards may be made. Postgraduate Diploma in Pharmaceutical and Chemical Process Technology (DIT). MSc in Pharmaceutical and Chemical Process Technology (DIT).

Location

School of Chemistry and School of Control Systems and Electrical Engineering, DIT, Kevin Street, Dublin 8

Career opportunities

Graduates of the programme will have the necessary knowledge and skills to operate effectively in process operation and process development in the chemical and pharmaceutical sector and related industrial sectors.

Programme commencement

Offers of places on the part-time programme will be made in late November/December with commencement in January. Applications should be made in October/November.

Fees

For details contact Secretary, School of Chemistry, DIT, Kevin Street, Dublin 8