QUEEN'S UNIVERSITY BELFAST

SCHOOL OF PHARMACY

HELPING YOU MAKE A REAL DIFFERENCE FOR PATIENTS

MSc INDUSTRIAL PHARMACEUTICS

Summary Entrance Requirements
Applicants should normally posess a 2:1 Honours degree in Chemistry, Pharmacy, Pharmaceutical Sciences, Biological Sciences or closely allied subject, or equivalent qualification acceptable to the University.

Borderline candidates may be considered for interview by the School of Pharmacy to review the content of their previous qualifications and to ensure their suitability to enter the programme.

International Qualifications
For information on international qualificationequivalents, please see: go.qub.ac.uk/YourCountry

English Language
Evidence of an IELTS* score of 6.5, with not less than 6.0 in any component, or an equivalent qualification acceptable to the University is required.

*Taken within the last 2 years.

Students with IELTS of 6 overall, with not less than 5.5 in each component will be required to complete a pre-sessional English course.

For more information on English Language requirements for EEA and non-EEA nationals see: go.qub.ac.uk/EnglishLanguageReqs

Contact Us
For further information please email: askmhls@qub.ac.uk.

Further Information
go.qub.ac.uk/indpharm

MSc
INDUSTRIAL PHARMACEUTICS

Overview

Queen's University Belfast has developed a dynamic new MSc programme for students seeking careers in the global pharmaceutical industry. The new MSc in Industrial Pharmaceutics will prepare graduates with the expertise and skills required for employment in an industry estimated to be worth $1.2 trillion. Industrial pharmaceutics plays a vital role in the development, validation and manufacture of new medicines and MSc graduates will be able to avail of employment opportunities at all stages of the medicine development pipeline.

The School of Pharmacy at Queen's has an excellent global reputation and is highly ranked for both teaching and research. Active areas of research within the School include Drug Delivery and Biomaterials, Infection and Antimicrobial Resistance, Nanomedicine and Biotherapeutics, and Pharmaceutical Materials Science and Formulation.

Content

The MSc programme consists of 6 taught modules designed to produce highly-skilled graduates in continuous manufacturing science and technology. It includes specialist content designed to meet the needs of leading pharmaceutics companies as they develop new products and undertake cutting-edge Research and Development.

As well as developing methods-based and problem-solving expertise in the fields of Pharmaceutical Sciences & Technology, the programme includes a 3-month research project which can be undertaken with an industrial partner to gain further commercial experience and prepare for future employment.

Modules

Formulation of Pharmaceutical & Biopharmaceutical Products
This module develops concepts from basic science, leading up to advanced pharmaceutical formulations and biopharmaceutical products. Module content will encompass the process of developing pharmaceuticals and biopharmaceuticals in a variety of dosage forms, and routes of administration.

Project Management & Entrepreneurship
The fundamentals of project management and entrepreneurship are the main module topics, including how to apply the principles of project management to a pharmaceutical project. In addition, students will undertake a Chartered Management Institute Level 7 Certificate (equivalent to a Master's degree) in Strategic Management and Leadership within the Queen's Graduate School.

Quality Assurance & Regulatory Affairs
This module provides an understanding of the challenges faced by the pharmaceutical industry as companies strive to develop new products. It also equips the students with modern product development and manufacturing solutions that conform to industry best practice and modern Quality by Design (QbD) principles.

Research Methods & Data Management
This module will provide students with the key skills and knowledge to pursue academic research at the postgraduate and professional level with state-of-the-art methods and data management requirements from the Industry.

Characterisation Methods of Pharmaceutical Products
This module introduces students to a wide range of techniques used in the qualitative and quantitative analysis of pharmaceutical products, including physiochemical characterisation, in vitro and in vivo testing. It will equip students with modern product development and solutions that reflect current industry best practice.

Pharmaceutical Manufacturing & Emerging Technologies
This module brings together several of the key scientific and engineering concepts. It will introduce students to a wide range of pharmaceutical manufacturing technologies; how to develop pharmaceutical manufacturing to meet the demands of the new medicines within the industry.

MSc Research Project
Students will be able to undertake their research project within an area of expertise within the School, or alternatively, undertake a work-based project which will increase their awareness of the commercial applications of the programme.

Why Queen's

Aligned to Industry
The course has been specifically designed to provide highly skilled, work-ready graduates who meet the needs of the pharmaceutical industry.

Access to world class facilities
Significant investment in advanced equipment for the research laboratories in the School of Pharmacy provides students with an outstanding learning environment.

Opportunities for Industry Internships
Top performing students will be selected to undertake research projects within an industrial partner within the UK. This presents an exciting opportunity for students to gain exposure to the commercial pharmaceutical environment.

Additional Qualifications
As part of the programme students will complete a CMI Level 7 Certificate in Strategic Management and Leadership through the Queen's Graduate School. This will provide them with the knowledge and key skills they will need in their future employment.

Careers

Graduates from this course will be able to pursue a career in a range of areas, such as;

- Pharmaceutical Industry (e.g. R&D, production, regulatory)
- Academia (research and teaching)
- Government agencies, such as drug licensing authorities
- Healthcare
- Scientific Research