

ENGINEERING IN PHARMACEUTICAL AND BIOPHARMACEUTICAL SYSTEMS

Full-Time Engineering Masters (MEngSc)

PROGRAMME CONTENT AND DELIVERY

Mandatory Modules (10 modules worth 5 credits each)

- PE6009 Pharmaceutical Engineering
- PE6011 Biopharmaceutical Engineering (NIBRT)
- PE6016 Pharmaceutical Industry; Manufacturing and Optimisation
- PE6024 Process Safety Engineering
- PE6026 Project Engineering - From Concept to Completion
- PE6032 Pharmaceutical Industry Advances and Developments
- PE6052 Powder and Particle Technology and Unit Operations
- PE6056 Sustainability in Pharmaceutical and Biopharmaceutical Manufacturing
- MG6902 Project Management (Pharma & Biopharma Manufacturing)

Elective Modules

- PE6007 Mechanical Design of Process Equipment
- OR
- PE6018 Pharmaceutical Process Validation & Quality
- AND
- PE6019 Process Analytical Technology
- OR
- CM6029 Introduction to Quality and Regulatory Affairs for BioPharma

Research Thesis or work-related research project

- PE6051 - Dissertation in industry/ academic setting in a topic related to Pharmaceutical/ Biopharmaceutical Manufacturing (30 credits).

FEES

- Non-EU: €24,000
- EU: €8,000

For detailed information on fees check our [Fees Page](#)

MEngSc in Engineering in Pharmaceutical and Biopharmaceutical Systems is a **full-time (12-months) programme** aimed at providing a Level 9 Engineering qualification in Pharmaceutical and Biopharmaceutical manufacturing in Cork, which houses 9 out of the world's top 10 pharmaceutical companies.

Primary focus areas include product containment, powder/particle technology, design of API and secondary production facilities, current Good Manufacturing Practice (cGMP), design of classified facilities, aseptic processing facility design, utilities and services, data analysis, process validation, sustainability and management in manufacturing.

With this programme, participants will be able to:

- Gain hands-on training at the **National Institute for Bioprocessing Research and Training (NIBRT)**
- Learn from **industry lecturers** from **Eli Lilly, Pfizer and PM Group**.
- Access multidisciplinary learning environment and **project-based learning**
- Get **networking opportunities** and opportunity for **industry-based dissertations**.

See details on the [programme webpage](#).



ENTRY REQUIREMENTS

Applicants must have a BE (Hons) or BEng (Hons) Degree or equivalent engineering qualification, with a minimum **Second Class Honours Grade I**, or a level 8 BSc degree, with a minimum grade **Second Class Honours Grade I**, where the BSc graduate has a recognised qualification in Process or Chemical Engineering or equivalent.

Refer to the [programme webpage](#) for detailed entry requirements .