

MENGSC IN ENGINEERING IN PHARMACEUTICAL AND BIOPHARMACEUTICAL SYSTEMS

Programme Requirements

| Code | Title | Credits |
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Students take **90** credits as follows – **60** credits of taught modules and **30** credits of research modules

Taught Modules

Students take **60** credits as follows - all listed core modules (**50** credits) and **10** credits of elective modules:

Core Modules

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|--------|---|---|
| MG6902 | Project Management (Pharma and Biopharma Manufacturing) | 5 |
| PE6009 | Pharmaceutical Engineering | 5 |
| PE6011 | Biopharmaceutical Engineering | 5 |
| PE6022 | Aseptic Manufacturing Design | 5 |
| PE6023 | Pharmaceutical and Biopharmaceutical Utilities and Auxiliaries | 5 |
| PE6024 | Process Safety Engineering | 5 |
| PE6026 | Project Engineering - From Concept to Completion | 5 |
| PE6032 | Pharmaceutical Industry Advances and Developments | 5 |
| PE6057 | Sustainability in Pharmaceutical and Biopharmaceutical Manufacturing | 5 |
| PE6058 | Contamination Control in Pharmaceutical and Biopharmaceutical Manufacturing | 5 |

Elective Modules

Students take modules to the value of **10** credits from the following (at least one module per semester):

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|--------|--|--|
| PE6007 | Mechanical Design of Process Equipment (5) | |
| PE6016 | Process Optimisation and Scale-up in the Pharmaceutical Industry (5) | |
| PE6019 | Process Analytical Technology (5) | |
| PE6056 | Pharmaceutical Process Validation (5) | |

Research Module

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|--------|---|----|
| PE6051 | Dissertation in Engineering in Pharmaceutical and Biopharmaceutical Systems | 30 |
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| Total Credits | 90 |
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Examinations

Full details and regulations governing Examinations for each programme will be contained in the *Marks and Standards Book* and for each module in the *Book of Modules*.