FACULTY OF ENGINEERING

DEPARTMENT OF CHEMICAL AND PROCESS ENGINEERING

ADVANCED CHEMICAL ENGINEERING

Master of Science in Advanced Chemical Engineering
Postgraduate Diploma in Advanced Chemical Engineering
Postgraduate Certificate in Advanced Chemical Engineering

These regulations are to be read in conjunction with General Academic Regulations - Postgraduate Taught Degree Programme Level

Admission

1. See General Academic Regulations - Postgraduate Taught Degree Programme Level.

Duration of Study

2. See General Academic Regulations - Postgraduate Taught Degree Programme Level.

Place of Study

3. See General Academic Regulations - Postgraduate Taught Degree Programme Level.

Mode of Study

4. The programmes are available by full-time study only.

Curriculum

5. All students shall undertake an approved curriculum as follows:

   i. for the Postgraduate Certificate – no fewer than 60 credits as detailed below
   ii. for the Postgraduate Diploma – no fewer than 120 credits as detailed below
   iii. for the degree of MSc - no fewer than 180 credits including a project

Compulsory Modules

Module Code	Module Title	Level	Credits
CP974	Advanced Process Design	5	20
CP967	Project Scoping	5	20
Students for the degree of MSc only:			
CP949	Individual Project	5	60

Optional Modules

Students must choose no fewer than 80 credits of optional modules with a minimum of 50 credits from List A and a minimum of 10 credits from List B.

List A

Module Code	Module Title	Level	Credits
CP523	Molecular Simulation in Chemical Eng	5	10
CP527	Petroleum Engineering	5	10
CP529	Programming and Optimisation	5	10
CP533	Clean Combustion Technologies	5	10
CP537	Electrochemical Energy Devices	5	10
CP538	Environmental Engineering for Solving Industrial Challenges	5	10
CP539	Advanced Process Analysis and Simulation	5	10
CP541	Introduction to Hydrogen Engineering	5	10
CP542	Advanced Process Safety	5	10
CP917	Process Design Principles	5	10

List B

Module Code	Module Title	Level	Credits
CL966	Materials and Microstructures	5	10
EF929	Financial Engineering	5	10
EF931	Project Management	5	10
EF932	Risk Management	5	10
EF945	Knowledge and Information Management for Engineers	5	10
EV939	Environmental Impact Assessment	5	10
SU902	Concepts and Theories of Sustainability	5	10

Exceptionally, students can undertake optional modules totalling no more than 10 credits as approved by the Programme Leader

Only students undertaking the Postgraduate Diploma can also choose the following optional module:

Module Code	Module Title	Level	Credits
CP973	PGDip Individual Project	5	20

Examination, Progress and Final Assessment

6. See General Academic Regulations - Postgraduate Taught Degree Programme Level.

7. The final award will be based on performance in the examinations, coursework and the Project where undertaken.

Award

8. **Degree of MSc:** In order to qualify for the award of the degree of MSc in Advanced Chemical Engineering, a candidate must have performed to the satisfaction of the Board of Examiners and must have accumulated no fewer than 180 credits, and 60 credits must have been awarded in respect of the Individual Project CP949.

9. **Postgraduate Diploma:** In order to qualify for the award of the Postgraduate Diploma in Advanced Chemical Engineering, a candidate must have accumulated no fewer than 120 taught credits, of which 20 credits must be awarded for the Project Scoping CP967.

10. **Postgraduate Certificate:** In order to qualify for the award of the Postgraduate Certificate in Advanced Chemical Engineering, a candidate must have accumulated no fewer than 60 credits from the taught curriculum.