FACULTY OF ENGINEERING

DEPARTMENT OF CHEMICAL AND PROCESS ENGINEERING

CHEMICAL ENGINEERING

Master of Engineering in Chemical Engineering
Bachelor of Engineering with Honours in Chemical Engineering
Bachelor of Engineering in Chemical Engineering
Diploma of Higher Education in Chemical Engineering
Certificate of Higher Education in Chemical Engineering

These regulations are to be read in conjunction with General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level.

Mode of Study
1. The programme is available by full-time study only.

Curriculum
2. **First Year** - All students shall undertake modules amounting to 120 credits as follows:

Compulsory Modules

Module Code	Module Title	Level	Credits
CH106	Chemistry: Principles and Practice 1	1	20
CP101	Basic Principles in Chemical Engineering	1	20
CP102	Chemical Engineering: Fundamentals, Techniques and Tools	1	20
MM111	Mathematics 1b	1	20
MM112	Mathematics 2b	1	20
	Elective Module(s)		20

3. **Second Year** - All students shall undertake modules amounting to 120 credits as follows:

Compulsory

Module Code	Module Title	Level	Credits
CP203	Thermodynamic and Chemical Principles	2	20
CP204	Fluid Flow and Heat Transfer	2	20
CP207	Process Analysis and Statistics	2	20
CP213	Applied Mathematics and Problem Solving	2	20
CP217	Chemical Engineering Practice 1	2	10

CP218	Applied Mechanics	2	10
CP219	Multiphase Materials and Processes	2	10
CP220	Process Safety Fundamentals	2	10

4. **Third Year** - All students shall undertake modules amounting to 120 credits as follows:

Compulsory Modules

Module Code	Module Title	Level	Credits
CP302	Mass Transfer and Separation Processes	3	20
CP303	Materials Processing and Applications	3	20
CP305	Ethics, Sustainability and Economics	3	20
CP307	Chemical Engineering Practice 2	3	20
CP315	Biochemical Engineering	3	10
CP316	Reactors	3	10
CP327	Chemical Process Design and Simulation	3	20

5. **Fourth Year** - All students shall undertake modules amounting to 120 credits as follows:

Compulsory Modules

Module Code	Module Title	Level	Credits
CP405	Process Control and Environmental Technology	4	20
CP407	Chemical Engineering Design	4	60
CP409	Advanced Separations and Problem Solving	4	20
CP414	Particle Technology and Advanced Reactors	4	20

6. **Fifth Year** - All students shall undertake modules amounting to 120 credits as follows:

Compulsory Modules

Module Code	Module Title	Level	Credits
CP540	Project Planning, Management and Methods	5	10
CP542	Advanced Process Safety	5	10

18530	Chemical Engineering Project	5	60

Optional Modules
No fewer than 40 credits, which are to be selected from the list below.

Module Code	Module Title	Level	Credits
CP523	Molecular Simulation	5	10
CP527	Petroleum Engineering	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

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

Progress

7. In order to progress to the second year of the programme, see General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level.

8. In order to progress to the third year of the programme, see General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level.

9. In order to progress to the fourth year of the programme, see General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level.

10. In order to progress to the fifth year of the programme, see General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level.

Final Assessment and Honours Classification

11. The final classification of the chosen degree will normally be based on the first assessed attempt at modules taken in the second, third and fourth years.

Award

12. **MEng:** In order to qualify for the award of the degree of MEng in Chemical Engineering, see General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level.

13. **BEng with Honours:** In order to qualify for the award of the degree of BEng with Honours in Chemical Engineering, see General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level.

14. **BEng:** In order to qualify for the award of the degree of BEng in Chemical Engineering, see General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level.

15. **Diploma of Higher Education:** In order to qualify for the award of a Diploma of Higher Education in Chemical Engineering, see General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level.

16. **Certificate of Higher Education:** In order to qualify for the award of a Certificate of Higher Education in Chemical Engineering, see General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level.