

# FACULTY OF ENGINEERING

## FACULTY PROGRAMME

### ENGINEERING: DESIGN AND MANUFACTURE

**Bachelor of Engineering with Honours in Engineering: Design and Manufacture**

**Bachelor of Engineering in Engineering: Design and Manufacture**

**Diploma of Higher Education in Engineering: Design and Manufacture**

**Certificate of Higher Education in Engineering: Design and Manufacture**

*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 programmes are available flexibly via on campus study (Open Access) or off campus (Distance Learning) on a full time basis.

#### **Curriculum**

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

#### **Compulsory Modules**

Module Code	Module Title	Level	Credits
EO101	Mathematics and Numerical Tools 1	1	30
EO102	Design and Production 1	1	30
EO103	Mechanical Engineering Systems 1	1	30
EO104	Electronic and Electrical Engineering Systems 1	1	30

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

#### **Compulsory Modules**

Module Code	Module Title	Level	Credits
EO201	Mathematics and Numerical Tools 2	2	30
EO202	Design and Production 2	2	30
EO203	Mechanical Engineering Systems 2	2	30
EO204	Electronic and Electrical Engineering Systems 2	2	30

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

#### **Compulsory Modules**

Module Code	Module Title	Level	Credits
EO300	Engineering Design and Manufacture Project A	3	60

### **Optional Modules**

60 credits at Level 3 or Level 4 chosen from the list of optional modules below. A maximum of 20 credits can be taken from List B.

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

### **Compulsory Modules**

Module Code	Module Title	Level	Credits
EO400	Engineering Design and Manufacture Project B	4	60

### **Optional Modules**

60 credits at Level 4 chosen from the list of optional modules below. A maximum of 20 credits can be taken from List B.

### **List A**

Module Code	Module Title	Level	Credits
EO301	Structure and Properties of Engineering Materials	3	20
EO302	Advanced Engineering Production Techniques	3	20
EO303	Digital Electronics and Embedded Systems	3	20
EO305	Key Power Systems Concepts and Foundations	3	20
EO401	Sensors Systems Signals and Instrumentation	4	20
EO402	Applied Mechanics and Machine Design	4	20
EO403	Design for X	4	20
EO404	Production Operations and Quality Management	4	20
EO405	Robotics and Control	4	20
EO406	Energy Fundamentals and Applications	4	20
EO408	Power System Operation Control and Protection	4	20
EO413	Principles and Applications of Non-Destructive Evaluation	4	20

### **List B**

CS358	Introduction to Programming	3	20
OB304	Managing People for Innovation and Performance	3	20
OB305	Managing Change	3	20
OB309	Marketing Foundations, Principles and Strategic Approach	3	20
OB403	Entrepreneurial Mindset in the Workplace	4	10
OB405	Operations Management and Simulation	4	10

### Progress

6. In order to progress to the second year of the programme, a student must have accumulated at least 120 credits from the programme curriculum.
7. In order to progress to the third year of the programme, a student must have accumulated at least 240 credits from the programme curriculum.
8. In order to progress to the fourth year of the programme, see [General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level](#).

### Final Honours Classification

9. The final Honours classification will normally be based on the first assessed attempt at compulsory and, where appropriate, specified optional modules which are taken in third and fourth year of the programme.

### Award

10. **BEng with Honours:** In order to qualify for the award of the degree of BEng with Honours in Engineering: Design and Manufacture, see [General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level](#).
11. **BEng:** In order to qualify for the award of the degree of BEng in Engineering: Design and Manufacture, see [General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level](#).
12. **Diploma of Higher Education:** In order to qualify for the award of a Diploma of Higher Education in Engineering: Design and Manufacture, see [General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level](#).
13. **Certificate of Higher Education:** In order to qualify for the award of a Certificate of Higher Education in Engineering: Design and Manufacture, see [General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level](#).