# FACULTY OF ENGINEERING

# DEPARTMENT OF DESIGN, MANUFACTURING AND ENGINEERING MANAGEMENT

# **PRODUCT DESIGN ENGINEERING**

Master of Engineering in Product Design Engineering Bachelor of Engineering with Honours in Product Design Engineering Bachelor of Engineering in Product Design Engineering Diploma of Higher Education in Product Design Engineering Certificate of Higher Education in Product Design Engineering

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

## Mode of Study

1. The programmes are 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
16132	Engineering Mechanics 1	1	20
DM100	Design 1	1	20
DM101	Integrating Studies 1	1	20
DM102	Introduction to Production Engineering and Management	1	20
MM115	Mathematics 1D	1	20
	Elective Module(s)		20

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

## Compulsory Modules

Module Code	Module Title	Level	Credits
ME217	Engineering Materials for Design	2	10
19222	Electrical Machines and Control	2	10
19260	Electrical and Electronic Engineering	2	10
DM200	Design 2	2	20

DM202	Design and Manufacturing Management	2	20
DM204	Integrating Studies 2	2	20
DM205	Production Techniques 1	2	20
ME101	Heat and Flow	1	10

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

# **Compulsory Modules**

Module Code	Module Title	Level	Credits
DM303	Engineering Design	3	20
DM306	Product Development	3	20
DM308	Production Techniques 2	3	20
DM309	Mechatronics Design and Applications	3	20
DM312	Mechatronic Design and Applications	3	10
DM313	Multidisciplinary Integrating Project	3	10
DM314	Individual Integrating Project	3	10
DM315	Mechatronics: Product Programming	3	10

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

# **Compulsory Modules**

Module Code	Module Title	Level	Credits
DM400	Advanced Design Methods	4	20
DM401	Advanced Product Design and Manufacture	4	20
DM402	Individual Project 1	4	40
DM403	Industrial Group Project	4	20

# **Optional Modules**

20 credits at Level 3, 4 or 5 chosen from the list of optional modules as approved by the Programme Leader.

6. **Fifth Year** - All students shall undertake modules amounting to no fewer than 120 credits as follows:

## **Compulsory Modules**

Module Code	Module Title	Level	Credits
DM511	Individual Project 2	5	60
DM501	Industrial Group Project 2	5	20
DM502	Research Studies	5	20

# **Optional Modules**

No fewer than 20 credits at Level 4 or 5 (which must bring the total at Level 5 to no fewer than 120 credits) chosen from the list of optional modules as approved by the Programme Leader.

# Progress

- 7. In order to progress to the second year of the programme, see <u>General Academic</u> <u>Regulations – Undergraduate</u>, <u>Integrated Master and Professional Graduate Degree</u> <u>Programme Level</u>.
- 8. In order to progress to the third year of the programme, see <u>General Academic</u> <u>Regulations – Undergraduate</u>, <u>Integrated Master and Professional Graduate Degree</u> <u>Programme Level</u>.
- 9. In order to progress to the fourth year of the programme, see <u>General Academic</u> <u>Regulations – Undergraduate</u>, <u>Integrated Master and Professional Graduate Degree</u> <u>Programme Level</u>.
- 10. In order to progress to the fifth year of the programme, see <u>General Academic</u> <u>Regulations – Undergraduate</u>, <u>Integrated Master and Professional Graduate Degree</u> <u>Programme Level</u>.

## **Final Classification**

11. The final classification for the chosen degree in Product Design Engineering will normally be based on the first assessed attempt at all modules taken in the third, fourth and fifth years.

## Award

- 12. **MEng:** In order to qualify for the award of the degree of MEng in Product Design Engineering, see <u>General Academic Regulations – Undergraduate</u>, Integrated Master <u>and Professional Graduate Degree Programme Level</u>; and must include DM402 Individual Project 1 and DM511 Individual Project 2.
- 13. **BEng with Honours:** In order to qualify for the award of the degree of BEng with Honours in Product Design Engineering, see <u>General Academic Regulations –</u> <u>Undergraduate, Integrated Master and Professional Graduate Degree Programme</u> <u>Level</u>; and must include DM402 Individual Project 1.
- 14. **BEng:** In order to qualify for the award of the degree of BEng in Product Design Engineering, see <u>General Academic Regulations – Undergraduate, Integrated Master</u> <u>and Professional Graduate Degree Programme Level.</u>
- 15. **Diploma of Higher Education:** In order to qualify for the award of a Diploma of Higher Education in Product Design Engineering, see <u>General Academic Regulations –</u> <u>Undergraduate, Integrated Master and Professional Graduate Degree Programme Level.</u>

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