

FACULTY OF ENGINEERING

DEPARTMENT OF DESIGN, MANUFACTURING AND ENGINEERING MANAGEMENT

MANUFACTURING ENGINEERING WITH MANAGEMENT

Master of Engineering in Manufacturing Engineering with Management
Bachelor of Engineering with Honours in Manufacturing Engineering with Management
Bachelor of Engineering in Manufacturing Engineering with Management
Diploma of Higher Education in Manufacturing Engineering with Management
Certificate of Higher Education in Manufacturing Engineering with Management

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 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
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
16132	Engineering Mechanics 1	1	20
EE108	Electrical and Electronic Engineering	1	10
ME101	Heat and Flow 1	1	10

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

MS210	Analysing and Improving Operations	2	20
DM202	Design and Manufacturing Management	2	20
DM204	Integrating Studies 2	2	20
DM205	Production Techniques 1	2	20
	Elective Module(s)	1	20

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

Compulsory Modules

Module Code	Module Title	Level	Credits
DM305	Innovation Management	3	20
DM307	Production and Operations Management	3	20
DM308	Production Techniques 2	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

Optional Modules

20 credits at Level 3 or 4 chosen from the list below, or such other modules as approved by the Year Adviser.

Module Code	Module Title	Level	Credits
DM300	Design Emotion and Experience	3	20
DM303	Engineering Design	3	20
DM400	Advanced Design Methods	4	20
Various	Vertically Integrated Project	3	10

Not all optional modules on this list may be available in each academic year.

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

Compulsory Modules

Module Code	Module Title	Level	Credits
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DM401	Advanced Product Design and Manufacture	4	20
DM402	Individual Project 1	4	40
DM403	Industrial Group Project 1	4	20
DM404	Quality Management	4	20

Optional Modules

20 credits chosen from the list below, or such other modules as approved by the Year Adviser.

Module Code	Module Title	Level	Credits
DM300	Design Emotion and Experience	3	20
DM400	Advanced Design Methods	4	20
DM406	Industrial Placement 1	4	20
Various	Vertically Integrated Project	4	10
DM506	Industrial Placement 4	5	20
DM918	People, Organisation and Technology	5	10
DM957	Management of Technology and Innovation	5	10
DM923	Product Modelling and Visualisation	5	10
DM943	Sustainable Product Design and Manufacturing	5	10
DM956	Digital Manufacturing and Smart Products	5	10
DM985	Remanufacturing	5	10
DM993	Systems Architectures and Design	5	10
DM994	Systems Engineering Concepts	5	10
EF950	Design Methods and Management	5	10

Not all optional modules on this list may be available in each academic year.

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
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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 below, or such other modules as approved by the Year Adviser.

Module Code	Module Title	Level	Credits
DM400	Advanced Design Methods	4	20
DM406	Industrial Placement 1	4	20
Various	Vertically Integrated Project	4	10
DM503	Global Design	5	10
DM506	Industrial Placement 4	5	20
DM918	People, Organisation and Technology	5	10
DM957	Management of Technology and Innovation	5	10
DM923	Product Modelling and Visualisation	5	10
DM926	Supply Chain Operations	5	10
DM933	Engineering Risk Management	5	10
DM941	Fundamentals of Lean Six Sigma	5	10
DM943	Sustainable Product Design and Manufacturing	5	10
DM956	Digital Manufacturing and Smart Products	5	10
DM983	Design Form and Aesthetics	5	10
DM984	Human Centred Design	5	10
DM985	Remanufacturing	5	10
DM993	Systems Architectures and Design	5	10
DM994	Systems Engineering Concepts	5	10
EF950	Design Methods and Management	5	10

Not all optional modules on this list may be available in each academic year.

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 Classification

11. The final classification for the chosen degree in Manufacturing Engineering with Management 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 Manufacturing Engineering with Management, the [General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level](#) shall apply, 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 Manufacturing Engineering with Management, the [General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level](#) shall apply, and must include DM402 Individual Project 1.
14. **BEng:** In order to qualify for the award of the degree of BEng in Manufacturing Engineering with Management, 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 Manufacturing Engineering with Management, 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 Production Engineering with Management, see [General Academic Regulations – Undergraduate, Integrated Master and Professional Graduate Degree Programme Level.](#)