

# FACULTY OF ENGINEERING

## DEPARTMENT OF DESIGN, MANUFACTURING AND ENGINEERING MANAGEMENT

### DESIGN ENGINEERING

Master of Science in Design Engineering  
Postgraduate Diploma in Design Engineering  
Postgraduate Certificate in Design Engineering

Master of Science in Design Engineering with Sustainability  
Postgraduate Diploma in Design Engineering with Sustainability  
Postgraduate Certificate in Design Engineering with Sustainability

Master of Science in Design Engineering with Advanced Product Development  
Postgraduate Diploma in Design Engineering with Advanced Product Development  
Postgraduate Certificate in Design Engineering with Advanced Product Development

*These regulations are to be read in conjunction with [General Academic Regulations - Postgraduate Taught Degree Programme Level](#).*

#### Admission

1. Notwithstanding the [General Academic Regulations - Postgraduate Taught Degree Programme Level](#), successful applicants shall possess:
  - i. a first or second class Honours degree in an Engineering, Design, Product Development, Science or Technology subject; or
  - ii. a qualification deemed by the Programme Leader acting on behalf of the Senate to be equivalent to i. above.
2. In all cases, applicants whose first language is not English, shall be required to demonstrate an appropriate level of English.

#### Duration of Study

3. See [General Academic Regulations - Postgraduate Taught Degree Programme Level](#).

#### Mode of Study

4. The programmes are available by full-time or part-time study.

#### Curriculum

5. All students shall undertake an approved curriculum as follows:
  - i. for the Postgraduate Certificate no fewer than 60 credits must be completed with at least 10 credits from the chosen specialism.
  - ii. for the Postgraduate Diploma no fewer than 120 credits including all the compulsory modules and all the specialist modules from the chosen specialism.
  - iii. for the degree of MSc no fewer than 180 credits including all the compulsory modules and all the specialist from the chosen specialism, including a 10 credit option, plus the Postgraduate Individual Project DM932.
6. Students will have the option to study:
  - i. Design Engineering; or
  - ii. Design Engineering with Sustainability; or
  - iii. Design Engineering with Advanced Product Development

7. Students are required to take all compulsory modules relevant to their chosen stream.

### **Compulsory Modules**

<b>Module Code</b>	<b>Module Title</b>	<b>Level</b>	<b>Credits</b>
DM503	Global Design	5	10
DM923	Product Modelling & Visualisation	5	10
DM931	Industry Group Project	5	40
DM934	Design Methods	5	10
EF927	Design Management	5	10
Students for the degree of MSc only:			
DM932	Postgraduate Individual Project	5	60

### **Design Engineering**

30 credits from:

<b>Module Code</b>	<b>Module Title</b>	<b>Level</b>	<b>Credits</b>
AB975	Sustainability	5	10
DM986	Mechatronic Systems Design Techniques	5	10
DM933	Engineering Risk Management	5	10
DM943	Sustainable Product Design and Manufacturing	5	10
DM948	Advanced Materials & Production Technology	5	10
DM985	Remanufacturing	5	10
DM986	Mechatronic Systems Design Techniques	5	10

### **Design Engineering with Sustainability**

30 credits from:

<b>Module Code</b>	<b>Module Title</b>	<b>Level</b>	<b>Credits</b>
AB975	Sustainability	5	10
DM943	Sustainability Product Design and Manufacturing	5	10

DM985	Remanufacturing	5	10
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### **Design Engineering with Advanced Product Development**

30 credits from:

<b>Module Code</b>	<b>Module Title</b>	<b>Level</b>	<b>Credits</b>
DM986	Mechatronic Systems Design Techniques	5	10
DM933	Engineering Risk Management	5	10
DM948	Advanced Materials & Production Technology	5	10

### **Optional Modules**

All Students must select 10 optional credits from the following list:

<b>Module Code</b>	<b>Module Title</b>	<b>Level</b>	<b>Credits</b>
AB975	Sustainability	5	10
DM920	Strategic Technology Management	5	10
DM926	Supply Chain Operations	5	10
DM928	Enterprise Resource Planning	5	10
DM933	Engineering Risk Management	5	10
DM935	Management of Total Quality and Continuous Improvement	5	10
DM941	Fundamentals of Lean Six Sigma	5	10
DM942	Manufacturing Automation	5	10
DM943	Sustainable Product Design and Manufacturing	5	10
DM944	Product Costing and Financial Management	5	10
DM945	System Thinking and Modelling	5	10
DM948	Advanced Materials & Production Technology	5	10
DM981	Management of Innovation	5	10
DM983	Design Form and Aesthetics	5	10
DM984	Human Centred Design	5	10

DM985	Remanufacturing	5	10
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### Examination, Progress and Final Assessment

8. See [General Academic Regulations - Postgraduate Taught Degree Programme Level.](#)
9. The final award will be based on performance in the examinations, coursework, and the Individual Project where undertaken.

### Award

10. **Degree of MSc:** In order to qualify for the award of the degree of MSc in Design Engineering and in Design Engineering with Sustainability and in Design Engineering with Advanced Product Development a candidate must have performed to the satisfaction of the Board of Examiners and must have accumulated no fewer than 180 credits including all the compulsory modules and all the specialist modules from the chosen specialist modules.
11. **Postgraduate Diploma:** In order to qualify for the award of the Postgraduate Diploma in Design Engineering and in Design Engineering with Sustainability and in Design Engineering with Advanced Product Development a candidate must have accumulated no fewer than 120 credits including all the compulsory modules and all the specialist modules from the chosen specialism.
12. **Postgraduate Certificate:** In order to qualify for the award of the Postgraduate Certificate in Design Engineering, a candidate must have accumulated no fewer than 60 credits from the taught modules of the programme.
13. **Postgraduate Certificate in Design Engineering with Sustainability and in Design Engineering with Advanced Product Development:** In order to qualify for the award of the Postgraduate Certificate in Design Engineering with Sustainability and in Design Engineering with Advanced Product Development a candidate must have accumulated no fewer than 60 credits, with at least 10 credits from the chosen specialism.