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 specialisation.
    ii. for the Postgraduate Diploma no fewer than 120 credits including all the compulsory modules and all the specialist modules from the chosen specialisation.
    iii. for the degree of MSc no fewer than 180 credits including all the compulsory modules and all the specialist from the chosen specialisation, 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 specialisation.

Compulsory Modules (All Specialisations – Full-time and Part-time Students)

Module Code	Module Title	Level	Credits
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

Together with modules appropriate to the chosen specialisation:

Design Engineering (Full-time Students)

30 credits from:

Module Code	Module Title	Level	Credits
AB975	Sustainability	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 (Part-time Students)

30 credits from:

Module Code	Module Title	Level	Credits

AB975	Sustainability	5	10
DM933	Engineering Risk Management	5	10
OR			
DM805	Engineering Risk Management (online)	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 (Full-time and Part-time Students)

30 credits from:

Module Code	Module Title	Level	Credits
AB975	Sustainability	5	10
DM943	Sustainability Product Design and Manufacturing	5	10
DM985	Remanufacturing	5	10

Design Engineering with Advanced Product Development (Full-time Students)

30 credits from:

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

Design Engineering with Advanced Product Development (Part-time Students)

30 credits from:

Module Code	Module Title	Level	Credits
DM986	Mechatronic Systems Design Techniques	5	10

DM933	Engineering Risk Management	5	10
OR			
DM805	Engineering Risk Management (online)	5	10
DM948	Advanced Materials & Production Technology	5	10

Optional Modules

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

Module Code	Module Title	Level	Credits
AB975	Sustainability	5	10
DM920	Strategic Technology Management	5	10
OR			
DM814	Technology and Innovation Management (online)	5	10
DM926	Supply Chain Operations	5	10
DM933	Engineering Risk Management	5	10
OR			
DM805	Engineering Risk Management (online)	5	10
DM941	Fundamentals of Lean Six Sigma	5	10
DM942	Manufacturing Automation	5	10
DM943	Sustainable Product Design and Manufacturing	5	10
DM945	System Thinking and Modelling	5	10
OR			
DM808	Introduction to Systems Thinking, Modelling and Optimisation (online)	5	10
DM948	Advanced Materials & Production Technology	5	10
DM955	Total Quality Management	5	10
OR			

DM809	Management of Total Quality and Continuous improvement (online)	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

Not all optional modules on this list will be available in each academic year. Please check your programme handbook for confirmation of which optional modules will run.

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 the relevant specialisation 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 specialisation.

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 specialisation.