

# FACULTY OF ENGINEERING

## DEPARTMENT OF DESIGN, MANUFACTURING AND ENGINEERING MANAGEMENT

### ADVANCED MANUFACTURING: TECHNOLOGY AND SYSTEMS

Master of Science in Advanced Manufacturing: Technology and Systems  
Postgraduate Diploma in Advanced Manufacturing: Technology and Systems  
Postgraduate Certificate in Advanced Manufacturing: Technology and Systems

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

#### Admission

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

#### Duration of Study

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

#### Mode of Study

3. The programmes are available by full-time and part-time study.

#### Curriculum

4. All students shall undertake an approved curriculum as follows:
  - i. for the Postgraduate Certificate no fewer than 60 credits chosen from the Compulsory list,
  - ii. for the Postgraduate Diploma no fewer than 120 credits including all the Compulsory Modules, and
  - iii. for the degree of MSc no fewer than 180 credits including the Postgraduate Individual Project.

#### Compulsory Modules (Full-time Students)

Module Code	Module Title	Level	Credits
DM920	Strategic Technology Management	5	10
DM931	Postgraduate Group Project	5	40
DM939	Digital Manufacturing	5	10
DM942	Manufacturing Automation	5	10
DM946	Micro- and Nano-Manufacturing	5	10
DM947	Advanced Forming and Technology Systems	5	10
DM948	Advanced Materials and Production Technology	5	10

Students for the degree of MSc:			
DM932	Postgraduate Individual Project	5	60

**Compulsory Modules (Part-time Students)**

Module Code	Module Title	Level	Credits
DM920	Strategic Technology Management	5	10
OR			
DM814	Technology and Innovation Management (online)	5	10
DM931	Postgraduate Group Project	5	40
DM939	Digital Manufacturing	5	10
DM942	Manufacturing Automation	5	10
DM946	Micro- and Nano-Manufacturing	5	10
DM947	Advanced Forming and Technology Systems	5	10
DM948	Advanced Materials and Production Technology	5	10
<b>Students for the degree of MSc only:</b>			
DM932	Postgraduate Individual Project	5	60

And 20 credits from the list of optional modules below.

**Optional Modules**

Module Code	Module Title	Level	Credits
DM923	Product Modelling and Visualisation	5	10
DM927	Strategic Supply Chain Management	5	10
DM933	Engineering Risk Management	5	10
OR			
DM805	Engineering Risk Management (online)	5	10
DM941	Fundamentals of Lean Six Sigma	5	10

DM943	Sustainable Product Design and Manufacturing	5	10
DM945	Systems Thinking and Modelling	5	10
OR			
DM808	Introduction to Systems Thinking, Modelling and Optimisation (online)	5	10
DM955	Total Quality Management	5	10
OR			
DM809	Management of Total Quality and Continuous Improvement (online)	5	10
DM986	Mechatronic Systems Design Techniques	5	10
EF931	Project Management	5	10
OR			
DM811	Project Management (online)	5	10

**Exceptionally, such other modules totalling no more than 20 credits as approved by the Programme Leader.**

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**

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

#### **Award**

7. **Degree of MSc:** In order to qualify for the award of the degree of MSc in Advanced Manufacturing: Technology and Systems a candidate must have performed to the satisfaction of the Board of Examiners and must have accumulated no fewer than 180 credits from the programme curriculum, of which 60 must have been awarded in respect of the Individual Project DM932.
8. **Postgraduate Diploma:** In order to qualify for the award of the Postgraduate Diploma in Advanced Manufacturing: Technology and Systems, a candidate must have accumulated no fewer than 120 credits from the programme curriculum.
9. **Postgraduate Certificate:** In order to qualify for the award of the Postgraduate Certificate in Advanced Manufacturing: Technology and Systems, a candidate must have accumulated no fewer than 60 credits from the programme curriculum.