

# FACULTY OF ENGINEERING

## DEPARTMENT OF DESIGN MANUFACTURE AND ENGINEERING MANAGEMENT

### ADVANCED MANUFACTURING: FORGING AND FORMING

#### Doctor of Engineering (EngD) in Advanced Manufacturing: Forging and Forming

For regulations relating to admissions, duration of study, examinations, progress, final assessment, award and research elements of this degree, please refer to the [General Academic Regulations - Postgraduate Research Degree Regulations](#).

For regulations relating to taught (compulsory/optional) modules, please refer to the [General Academic Regulations - Postgraduate Taught Degree Programme Level](#).

#### Admission

1. See [General Academic Regulations - Postgraduate Research Degree Regulations](#).

#### Mode of Study

2. The programme is available by full-time study only.

#### Curriculum

3. All students shall undertake an approved curriculum as follows:

#### 4. First Year

#### Compulsory Modules

Module Code	Module Title	Level	Credits
DM920	Strategic Technology Management	5	10
DM932	Postgraduate Individual Project	5	60
DM942	Manufacturing Automation	5	10
DM946	Micro- and Nano-Manufacturing	5	10
DM947	Advanced Forming Technology and Systems	5	10
DM948	Advanced Material and Production Technology	5	10
BE919	Research Methodology	5	10

#### Optional Modules

No fewer than 60 credits chosen from:

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

DM925	Systems Integration	5	10
DM927	Strategic Supply Chain Management	5	10
DM929	CAED Systems	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
DM949	Design of Experiments for Process Optimisation	5	10
EF930	Information Management	5	10
EF931	Project Management	5	10

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

#### 5. **Second, Third and Fourth Years**

All students shall undertake a Doctoral Research Project. Research projects are allocated to students from an approved list at the start of the programme and the normal supervisory and progression requirements for doctoral awards apply (see the [General Academic Regulations - Postgraduate Research Degree Regulations](#)).

#### **Examination, Progress and Final Assessment**

6. Candidates are required to perform to the satisfaction of the Board of Examiners in the taught component of the programme. In addition, students must satisfy the general regulations associated with the award of a doctoral research degree as specified in the [General Academic Regulations - Postgraduate Research Degree Regulations](#).
7. Candidates will normally be expected to attain 180 credits before being permitted to commence work on a doctoral research project.
8. Candidates who fail to satisfy the Board of Examiners in any taught module shall be permitted one further attempt to pass the relevant module(s) normally in the same academic year.

#### **Award**

9. **Degree of EngD:** In order to qualify for the award of the degree of EngD in Advanced Manufacturing; Forging and Forming, 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 submitted a piece of satisfactory original research in the form of a portfolio as specified in the [General Academic Regulations - Postgraduate Research Degree Regulations](#), performed satisfactorily in an oral examination.

#### **Transfer**

10. A candidate who fails to satisfy the progress and award requirements for the award of the EngD may be transferred to the MSc Advanced Manufacturing: Forging and Forming.