

## Programme Regulations 2021/22

### Programme Title: Integrated PhD in Additive Manufacturing and 3D Printing

Code: 8838F

Notes:

- (i) *These programme regulations should be read in conjunction with the University's Regulations for Research Masters Degree Programmes, and Taught Degree Regulations..*
- (ii) *A core module is a module which a student must pass, and in which a fail mark may neither be carried nor compensated; such modules are designated by the board of studies as essential for progression to a further stage of the programme or for study in a further module.*
- (iii) *A compulsory module is a module which a student must take.*

#### 1. Programme structure

The training programme requires the students to complete a total of 180 credits. This comprises 70 credits of assessed Masters level taught modules offered by Nottingham, Newcastle, Liverpool and Loughborough Universities and 80 credits of postgraduate project elements:

- Individual Project (40). An individual project focussed on exploring and defining the area of research in years 2-4.
- Group 'Grand Challenge' Project (40) Grand challenge competitive project.

The remaining 30 credits are achieved through modules in International Experience (20) and Industrial Internship (10).

The programme is only available for study in full-time mode.

The period of study for full-time mode will be 4-5 years, starting in September.

#### 2. The taught element

##### Compulsory Stage 1 modules (Total 140 credits)

Students must take all modules in this group from Nottingham (UNot), Newcastle (UNew), Loughborough (LU) and Liverpool (UoL).

Module Title	Module Code	Credits	Year	Semester	Level	Offered by
Research and Professional Skills	MM4PRS	10	1	Autumn & Spring	7	UNot
Introduction to Additive Manufacturing 1	15MMP607	10	1	Autumn	7	LU
Introduction to Additive Manufacturing 2	MM4AM2	10	1	Autumn	7	UNot
Individual Project for CDT in Additive Manufacture	MM4PAM	40	1	Autumn & Spring	7	UNot
Group Grand Challenge	MM4GGC	40	1	Spring	7	UNot
Research Internship	MM4INT	10	2-4	n/a	7	All
International Experience	MM4INE	20	2-3	n/a	7	All

### Restricted Stage 1 optional modules (Total 10 credits)

Students may take one of the following modules, or an alternative if approved by their supervisor and the Programme Director.

Module Title	Module Code	Credits	Year/ Semester	Level	Offered by
CAE for Additive Manufacture	MM4CAM	10	1 Spring	7	UNot
Materials for Additive Manufacturing	MM4MAM	10	1 Spring	7	UNot

### Elective modules (Total 30 credits)

Students may choose any module relevant to their research programme with the approval of their supervisor and the Programme Director.

### 3. The Research Element

On satisfactory completion of the first year of the taught component (see 5 below), candidates will undertake an individual research project leading to the submission of a doctoral thesis, typically not exceeding 50,000 words.

### 4. Assessment methods

Details of the assessment pattern for each taught module is explained in the module outline. The research element will be assessed through the student presenting a thesis in the approved form (in accordance with the Rules for the Submission of Work for Higher Degrees and the Rules for the Form of Theses) and viva voce examination of that thesis.

### 5. Progression

A candidate's progress shall be reviewed annually by the PGR Progression Panel.

- (a) In order to progress from year to year the candidate must:
- (i) after the application of any compensation, have obtained a weighted average mark for the taught component of at least 60;
  - (ii) have failed no more than 20 credits and;
  - (iii) have no module marks below 40;
  - (iv) have made satisfactory progress with their research project, as determined by a satisfactory report from the PGR Progression Panel determined in a manner which is consistent with the University's Code of Practice for Research Degree Programmes.
- (b) On the recommendation of the PGR Progression Panel, progress may be deemed to be satisfactory notwithstanding failure to satisfy any of the above requirements.

A candidate failing any module will have the right to one re-assessment of that module. Re-assessments would be arranged within four weeks of the original assessment marks being released where possible.

### 6. Transfer

Students who have successfully completed part of the entire training component but who subsequently do not complete the requirements for the IPhD may be awarded a Postgraduate Diploma (PGDip) or Postgraduate Certificate (PGCert) in Additive Manufacturing and 3D Printing. As agreed in the Memorandum of Agreement between the Universities, the University of Nottingham will provide this award.