

# FACULTY OF ENGINEERING

## DEPARTMENT OF DESIGN, MANUFACTURING AND ENGINEERING MANAGEMENT

### TECHNOLOGY VENTURES WITH DIGITAL MANUFACTURING

Master of Science in Technology Ventures with Digital Manufacturing  
Postgraduate Diploma in Technology Ventures with Digital Manufacturing  
Postgraduate Certificate in Digital Manufacturing

*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 Director acting on behalf of the Senate to be equivalent to (i) above; or
  - iii. have satisfactorily obtained 99 CMU units of study (150 credits) from the MS in Technology Ventures at Carnegie Mellon University, including the Master of Science Technology Ventures Internship.
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](#).

#### Place of Study

4. As permitted by the [General Academic Regulations - Postgraduate Taught Degree Programme Level](#), some off-campus work may be required.

#### Mode of Study

5. The programmes may be available by full-time study only.

#### Curriculum

6. All students shall undertake an approved curriculum as follows:
  - i. for the Postgraduate Certificate no fewer than 60 credits
  - ii. for the Postgraduate Diploma no fewer than 120 credits
  - iii. for the degree of MSc fewer than 180 credits including a project

#### Compulsory Modules

Module Code	Module Title	Level	Credits
DM939	Digital Manufacturing Concepts	5	10

DM942	Manufacturing Automation	5	10
DM986	Mechatronic Systems Design Techniques	5	10
DM951	Design for Industry 4 and Smart Products	5	10
EF945	Knowledge & Information Management for Engineers	5	10
DM931	Postgraduate Group Project	5	40

### **Optional Modules**

No fewer than 30 credits chosen from:

Module Code	Module Title	Level	Credits
DM948	Advanced Materials & Production Technology	5	10
DM946	Micro- and Nano-Manufacturing	5	10
DM945	Systems Thinking and Modelling	5	10
DM943	Sustainable Product Design & Manufacturing	5	10
DM981	Management of Innovation	5	10

### **Students for the Degree of MSc only**

Module Code	Module Title	Level	Credits
DM932	Postgraduate Individual Project	5	60

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

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

- See [General Academic Regulations - Postgraduate Taught Degree Programme Level](#).
- The final award will be based on performance in the examinations, coursework, and the DM932 Postgraduate Individual Project where undertaken.

### **Award**

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

11. **Postgraduate Certificate:** In order to qualify for the award of the Postgraduate Certificate in Digital Manufacturing, a candidate must have accumulated no fewer than 60 credits from the programme curriculum.