Programme Regulations: 2025/26

Programme Titles:

Degree of Master of Science in Mechanical Engineering – Code: 5120F

Degree of Master of Science in Mechanical Engineering Science - Code 5463F*

Notes:

- (i) These programme regulations should be read in conjunction with the University's Taught Programme Regulations.
- (ii) A core module for outcomes is a module which a student must pass.
- (iii) A core module for PSRB accreditation is a module a student is required to obtain accreditation.
- (iv) A compulsory module is a module which a student is required to study.
- (v) All modules are delivered in Linear mode unless stated otherwise as Block, eLearning or distance learning.
- (vi) *The Master of Science in Mechanical Engineering Science Code 5463F, is a non-accredited Masters degree title awarded where a candidate only meets the requirements of the University's Taught Programme Regulations and Examination Conventions and not the requirements of accreditation.

1. Programme structure

- (a) The programme is available for study in full-time mode only.
- (b) The period of study for full-time mode shall be one year starting in September.
- (c) The programme comprises modules to a credit value of 180.
- (d) All candidates shall take the following compulsory module:

| Code | Descriptive title | Total Credits | Credits Sem 1 | Credits Sem 2 | Credits Sem 3 | Level | Core for PSRB Accreditation | Core for outcomes | Mode |
|---------|--|------------------|------------------|------------------|------------------|-------|--------------------------------|-------------------|-------|
| MEC8024 | Vehicle Dynamics | 20 | | 20 | | 7 | | | Block |
| MEC8063 | Introduction to Mechatronics Engineering | 20 | 20 | | | 7 | | | Block |
| MEC8080 | Core Skills | 20 | 20 | | | 7 | | | Block |

| MEC8095 | MSc Project: | 60 | 10 | 50 | 7 | Yes | Linear |
|---------|--------------|----|----|----|---|-----|--------|
| | Mechanical & | | | | | | |
| | Systems | | | | | | |
| | Engineering | | | | | | |

(e) Candidates who have studied on a BEng Mechanical Engineering programme at Newcastle University shall replace MEC8063 Introduction to Mechatronics Engineering with the following compulsory module:

| Code | Descriptive title | Total Credits | Credits Sem 1 | Credits Sem 2 | Credits Sem 3 | Level | Core for PSRB Accreditation | Core for outcomes | Mode |
|---------|-------------------------------|------------------|------------------|------------------|------------------|-------|--------------------------------|-------------------|-------|
| EEE8154 | Control of Electric Drives | 20 | 20 | | | 7 | | | Block |

(f) All candidates shall select one of the streams listed in (i) to (ii) below:

(i) Mechatronics Stream

All candidates shall take the following compulsory modules:

| Code | Descriptive title | Total | Credits | Credits | Credits | Level | Core for PSRB | Core for | Mode |
|---------|-------------------|---------|---------|---------|---------|-------|---------------|----------|-------|
| | | Credits | Sem 1 | Sem 2 | Sem 3 | | Accreditation | outcomes | |
| EEE8150 | Industrial | 20 | 20 | | | 7 | | | Block |
| | Automation, PLCs | | | | | | | | |
| | and Robotics | | | | | | | | |
| EEE8153 | Advanced Control | 20 | | 20 | | 7 | | | Block |
| | Systems | | | | | | | | |
| MEC8057 | Mechatronics and | 20 | | 20 | | 7 | | | Block |
| | Mobile | | | | | | | | |
| | Robotics | | | | | | | | |

(ii) Mechanical with Design Stream

All candidates shall take the following compulsory modules:

| Code | Descriptive title | Total | Credits | Credits | Credits | Level | Core for PSRB | Core for | Mode |
|---------|-----------------------|---------|---------|---------|---------|-------|---------------|----------|-------|
| | | Credits | Sem 1 | Sem 2 | Sem 3 | | Accreditation | outcomes | |
| CME8060 | Lifetime Prediction | 20 | | 20 | | 7 | | | Block |
| | and Design for | | | | | | | | |
| | Reliability | | | | | | | | |
| MEC8028 | Human Centered | 20 | | 20 | | 7 | | | Block |
| | Design and | | | | | | | | |
| | Engineering | | | | | | | | |
| MEC8029 | Design of | 20 | 20 | | | 7 | | | Block |
| | Mechanical Power | | | | | | | | |
| | Transmissions | | | | | | | | |

2. Assessment methods

Details of the assessment pattern for each module are explained in the module outline.

For the purpose of professional accreditation, the University's Education Committee has approved a variation to the Taught Programme Regulations to the effect that a candidate who passes all core modules and fails up to 20 credits of non-core modules is recommended, as of right, for the award of an appropriate Master's degree or Postgraduate Diploma, provided that no mark is below 40 and the weighted average mark for all modules and all non-modular aggregated assessment is at least 50.