Programme Regulations: 2022/23

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 titles 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*
MEC8058	Instrumentation and Drive Systems	20	20			7			*Block*
MEC8080	Core Skills	20	20			7			Block

(e) Candidates on the Mechatronics and Mechanical Streams who have studied on a BEng Mechanical Engineering programme at Newcastle University shall replace the modules listed in (d) with the following compulsory modules:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Credits Sem 3*	*Level*	*Core for PSRB Accreditation*	*Core for outcomes*	*Mode*
EEE8087	Real Time Embedded Systems	20	20			7			*Block*
EEE8154	Control of Electric Drives	20	20			7			Block

(f) Candidates on the Materials Stream who have studied on a BEng Mechanical Engineering programme at Newcastle University shall replace the modules listed in (d) with the following compulsory modules:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Credits Sem 3*	*Level*	*Core for PSRB Accreditation*	*Core for outcomes*	*Mode*
EEE8087	Real Time Embedded Systems	20	20			7			*Block*
CME8129	Modelling Materials and Processes	20	20			7			Block

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

(i) Mechatronics Stream

All candidates shall take the following compulsory modules:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Credits Sem 3*	*Level*	*Core for PSRB Accreditation*	*Core for outcomes*	*Mode*
EEE8150	Industrial Automation, PLCs and Robotics	20	20			7			*Block*
EEE8151	Distributed Control Systems	20		20		7			Block
MEC8057	Mechatronics and Mobile Robotics	20		20		7			Block
MEC8024	Vehicle Dynamics	20		20		7			Block
MEC8095	MSc Project: Mechanical & Systems Engineering	60		10	50	7	Yes		Linear

(ii) Mechanical Stream

All candidates shall take the following compulsory modules:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Credits Sem 3*	*Level*	*Core for PSRB Accreditation*	*Core for outcomes*	*Mode*
MEC8029	Design of Mechanical Power Transmissions	20	20			7			*Block*
CME8055	Energy Sources and	20		20		7			Block

	Storage								
MEC8028	Human Centered Design and Engineering	20		20		7			Mode
MEC8024	Vehicle Dynamics	20		20		7			Block
MEC8095	MSc Project: Mechanical and Systems Engineering	60		10	50	7	Yes		Linear

(iii) Material Stream

All candidates shall take the following compulsory modules:

Code	*Descriptive title*	*Total Credits*	*Credits Sem 1*	*Credits Sem 2*	*Credits Sem 3*	*Level*	*Core for PSRB Accreditation*	*Core for outcomes*	*Mode*
MEC8029	Design of Mechanical Power Transmissions	20	20			7			*Block*
CME8060	Lifetime Prediction & Design for Reliability	20		20		7			Block
CME8061	Advanced Materials for Energy Applications	20		20		7			Mode
CME8062	Joining Technology	20		20		7			Block
MEC8095	MSc Project: Mechanical and Systems Engineering	60		10	50	7	Yes		Linear

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 in Postgraduate (Taught) Examination Convention G.94 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 non-module aggregated assessment is at least 50.

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