Undergraduate Programme Specification MEng/BEng (Hons)/Beng Mechanical Engineering (Design/Systems)

This specification provides a summary of the main features of the programme and learning outcomes that a student might reasonably be expected to achieve and demonstrate where full advantage is taken of all learning opportunities offered. Further details on the learning, teaching and assessment approach for the programme and modules can be accessed on the University website and Virtual Learning Environment, GCU Learn. All programmes of the University are subject to the University's Quality Assurance processes.

1. GENERAL INFORMATION				
Programme Title	MEng/BEng (Hons)/BEng Mechanical Engineering (Design) Mechanical Engineering (Systems)			
Final Award	MEng Mechanical Engineering (Design) MEng Mechanical Engineering (Systems) BEng (Hons) Mechanical Engineering (Design) BEng (Hons) Mechanical Engineering (Systems) BEng Mechanical Engineering (Design) BEng Mechanical Engineering (Systems) DipHE in Mechanical Engineering CertHE in Engineering			
Awarding Body	Glasgow Caledonian University			
School	School of Science and Engineering			
Department	Department of Mechanical Engineering			
Mode of Study	Full-time Part-time			
Location of Delivery	Glasgow Campus			
UCAS Code	MEng ME (H381) BEng (Hon) ME (H380) BEng ME (College Pathway) (H370)			
Accreditations (PSRB)	Institution of Mechanical Engineers [IMechE]			
Period of Approval	**From:**	September 2021	**To:**	August 2027

2. EDUCATIONAL AIMS OF PROGRAMME

Programme Philosophy

To produce multi-disciplinary professional engineers with a bias toward mechanical engineering, who have the required knowledge and understanding of specific mechanical engineering principles, integrated with an understanding of general engineering, manufacturing and business, reinforced with good personal, inter-personal and team-working skills, to enable them to perform effectively in any appropriate situation.

General Aims of the Programme

- To create in the student an ability to think clearly and logically.
- To equip the student with a range of analytical methods for use in engineering applications.
- To provide such principles and practice as will allow the student to acquire an understanding of engineering to cope adequately with technological change.

- To develop the students' ability to contribute to the specification, design, testing, commissioning, modification, manufacture and maintenance of engineering artefacts and systems.
- To develop fully the student's abilities in the use of computer aided engineering and relevant aspects of information technology.
- To make the student aware of the ethics, social, economic, and environmental impact of engineering.
- To extend, enhance and improve the judgement of the student in decision making by extension of analytical, creative and intellectual skills.
- To integrate the expertise of staff gained from research, consultancy and scholarly activity into the programme materials where appropriate.
- To develop the students' interpersonal skills to enable effective communication and team working.
- To provide a broad education by an integrated study of vocational and academic disciplines.

Beng (Honours) Graduates will gain the following specialist knowledge, abilities and skills.

- A knowledge of the range and use of analytical methods available for the design, specification, and monitoring of mechanical engineering systems.
- The ability to analyse and evaluate the performance and operational characteristics of a range of mechanical engineering equipment.
- A strong theoretical understanding in mechanical engineering, enabling the student to respond positively to technological development and innovation.
- Ability to utilise modern advanced computer-aided design, simulation and analysis techniques in the solution of complex engineering problems in a mechanical engineering environment.
- An awareness and appreciation of the practical issues involved in the design, specification, maintenance, commissioning and manufacture of mechanical equipment and associated systems.
- An awareness of the social, regulatory and environmental impact of engineering solutions to the production, distribution, and utilisation of mechanical engineering equipment.
- Knowledge of the latest developments in the subject area through the inclusion of research material where appropriate based on staff research, consultancy and other scholarly activity.

MEng Graduates will have in addition to the BEng.

- The ability to integrate their knowledge and understanding of mathematics, science, computer-based methods, design, the economic, social and environmental context, and engineering practice to solve a substantial range of complex engineering problems, some of a complex nature.
- Acquired much of this ability through involvement in individual and group projects, and greater degree of industrial involvement than those in Bachelor's degree programmes.

3. LEARNING OUTCOMES

The programme provides opportunities for students to develop and demonstrate knowledge and understanding, skills, qualities and other attributes in the following areas [these outcomes are then mapped to AHEP_4 Learning Outcomes as required by the UK-SPEC– See Tables in Appendix]:

A: Knowledge and understanding.

A1 Knowledge and understanding of scientific and mathematical principles and methodology necessary to underpin their education in their engineering discipline and to enable them to apply mathematical methods, tools and notations proficiently in the analysis and solution of engineering problems.

A2 The engineering principles, concepts, and theories relevant to their own engineering discipline and other engineering disciplines and an awareness of developing technologies related to their own engineering specialism.

A3 The analytical methods, modelling techniques, computer models and software tools relevant to their engineering discipline in order to solve engineering problems.

A4 Structured design processes and methodologies and a systems approach to engineering problems and product design.

A5 The commercial and economic context of engineering activity and the management techniques, which may be used to achieve engineering objectives within that context.

A6 The framework of relevant legal requirements, codes of practice, quality issues and industrial standards governing engineering activity and product design.

A7 The multi-disciplinary nature of product engineering, the need for a high level of professional and ethical conduct in engineering practice, and the requirement for engineering activities to promote sustainable development.

B: Practice: Applied knowledge, skills and understanding.

B1 Demonstrate proficiency in the use of specialist equipment, development tools, materials and processes employed in design and manufacturing systems.

B2 Exercise safe working practices and demonstrate proficiency in workshop and laboratory skills.

B3 Use and manage a structured design process in the creation and development of an economically viable product.

B4 Demonstrate a critical appreciation of the complexity and interaction of managerial, technical and environmental issues in the modern workplace.

B5 Manage sustainable and ethical product design within companies and across supply chains.

B6 Apply project management and business practices appropriately.

B7 Operate and act responsibly, adhere to professional codes of practice and industrial standards, taking account of the need to progress environmental, social and economic outcomes simultaneously.

B8 Specialist knowledge in design and manufacturing engineering and its application.

B9 Critical thinking and problem solving applied to design and manufacturing engineering.

B10 Critical analysis.

B11 Effective information retrieval and research skills.

B12 Commercial awareness.

C: Generic cognitive skills.

C1 Apply mathematical methods and scientific and engineering principles proficiently in the analysis, synthesis, performance assessment, critical appraisal and evaluation of design and manufacturing systems.

C2 Select and apply appropriate analytical and computer-based methods for modelling and analysing engineering problems.

C3 Select and apply appropriate computer software tools to the synthesis, implementation, evaluation, analysis and solution of electronic problems and systems.

C4 Investigate and define a problem and identify constraints including environmental and sustainability, health and safety and risk assessment issues.

C5 Apply a systems approach to the analysis and solution of engineering problems and the design of manufactured products.

C6 Use imagination, creativity and innovation, through synthesis of ideas, to provide products and services whilst exercising professional judgment and methods to resolve dilemmas arising from ethical, sustainability and financial constraints.

C7 Apply management techniques to achieve engineering objectives within a commercial and economic context.

D: Communication, numeracy and ICT skills

D1 Communication skills; written, oral and listening.
D2 Numeracy as applied to the solution of engineering problems.
D3 Computer literacy as applied to the solution of engineering problems.
D4 Presentation skills.

E: Autonomy, accountability and working with others.

E1 Self-confidence, self-discipline & self-reliance (independent working).
E2 Awareness of strengths and weaknesses.
E3 Creativity, innovation & independent thinking.
E4 Appreciating and desiring the need for continuing professional development.
E5 Reliability, integrity, honesty and ethical awareness.
E6 Entrepreneurial, independence and risk-taking.
E7 Ability to prioritise tasks and time management (organising and planning work).
E8 Interpersonal skills, team working and leadership.

Intended Learning Outcomes

The programme provides opportunities for students to develop and demonstrate knowledge and understanding, qualities, skills and other attributes in the areas shown below.

The programme learning outcomes are derived from the following sources, principally the QAA Engineering Benchmark Statements (now linked to UK-SPEC).

- QAA Engineering Benchmark Statements (now linked to UK-SPEC)[1],
- Engineering Council UK Standard for Professional Engineering Competence (UK-SPEC)[2]
- The Educational Aims of the Programme (GCU Employability Assets)

A mapping of the programme learning outcomes to the modules is shown in Appendix, Curriculum Map and Cross Map (UK-SPEC to GCU Employability Assets). The intended learning outcomes are communicated to students via the student (Programme) Handbook.

<u>At BEng/BEng (Hons)</u>

Specific Learning Outcomes in Engineering
Science and Mathematics
Engineering Analysis
Design and Innovation
The Engineer and Society
Engineering Practice

<u>At MEng in addition to BEng (Hons)</u>

Science and Mathematics
Engineering Analysis
Design and Innovation

[1] THE ACCREDITATION OF HIGHER EDUCATION PROGRAMMES, UK Standard for Professional Engineering Competence, https://www.engc.org.uk/media/3877/uk-spec-v12-web.pdf

[2] UK STANDARD FOR PROFESSIONAL ENGINEERING COMPETENCE, Engineering Technician, Incorporated Engineer and Chartered Engineer Standard,

https://www.engc.org.uk/media/3464/ahep-fourth-edition.pdf

The Engineer and Society
Engineering Practice

4. LEARNING AND TEACHING METHODS

The programme provides a variety of learning and teaching methods. Programme and Module specific guidance will provide detail of the learning and teaching methods specific to each module.

Across the programme the learning and teaching methods and approaches may include the following:

- Lectures
- Seminars
- Practical classes
- Placements
- Simulation experiences
- Groupwork
- Flipped classroom approaches
- Online learning

The above approaches may be delivered either in person or online as appropriate and determined at module level by the Module Leader.

5. ASSESSMENT METHODS

The programme provides a variety of formative and summative assessment methods. Programme and Module specific guidance will provide detail of the assessment methods specific to each module.

Across the programme the assessment methods may include the following:

- Written coursework (essays, reports, case studies, dissertation, literature review)
- Oral coursework (presentations, structured conversations)
- Practical Assessment (Placement, VIVA, Laboratory work)
- Group work
- Blogs and Wikis
- Portfolio Presentations
- Formal Examinations and Class Tests

The above assessments may be delivered either in person and online as appropriate and determined at module level by the Module Leader.

6. ENTRY REQUIREMENTS

Specific entry requirements for this programme can be found on the prospectus and study pages on the GCU website at this location: www.gcu.ac.uk/study

The Course webpage specific to this Programme is:
https://www.gcu.ac.uk/study/courses/undergraduate-mechanical-engineering-glasgow

All students entering the programme are required to adhere to the GCU Code of Student Conduct.

7. PROGRAMME STRUCTURE AND AVAILABLE AND FINAL EXIT AWARDS

See also Appendix Tables 3.1.1 and 3.2.1 for assessment weighting details.

a. FULL-TIME STUDY MODE

Mechanical Engineering – Design or Systems (common 1st and 2nd year)

Year 1 - SCQF 7				
Module Code	Module Title	Level	Credits	Assessment Method
M1H326673	Mathematics 1	1	20	50% CW, 50% EX
M1H326677	Mechanical Principles	1	20	100% CW
M1H626680	Electrical Principles	1	20	100% CW
M1H326682	Modern Engineering Practice	1	20	100% CW
M1H626678	Engineering for Society	1	20	100% CW
M1H326689	Engineering Science	1	20	100% CW
Exit with Certificate of Higher Education (CertHE) in Engineering				
Year 2 - SCQF 8				
M2H326684	Mathematics 2	2	20	50% CW, 50% EX
M2H323512	Thermodynamics & Fluid Mechanics	2	20	30% CW, 70% EX
M2H720058	Manufacture & Materials 2	2	20	50% CW, 50% EX
M2H630297	Electrical Distribution Systems	2	20	50% CW, 50% EX
M2H622325	Control and Instrumentation Systems	2	20	30% CW, 70% EX
M2H721926	Engineering Design and Analysis 2	2	20	30% CW, 70% EX
Exit with Diploma of Higher Education (DipHE) in Mechanical Engineering				

Mechanical Engineering – Design BEng

Year 3 - SCQF 9				
Module Code	Module Title	Level	Credits	Assessment Method
MHH113285	Computer Aided Engineering	4	20	100% CW
M3H721406	Manufacture & Materials 3	3	20	30% CW, 70% EX
M3H120320	Engineering Design & Analysis 3	3	20	30% CW, 70% EX
	EITHER			
M3J923150	Energy Conversion Technologies	3	20	30% CW, 70% EX

M3H623554	Integrated Engineering Studies 3	3	20	100% CW
M3H723623	Engineering Operations Management	3	20	30% CW, 70% EX
	OR			
M3H623747	European Project Semester	3	60	100% CW
Exit with BEng Degree in Mechanical Engineering (Design)				
Year 4 - SCQF 10 Sandwich Programme [Optional for those students not previously on European Project Semester]				
M3H721925	Industrial Practice	3	60	100% CW
M3K226158-60	SSE Exchange	3	60	100% CW
Year 4 - SCQF 10 Full-Time Programme **Year 5** - Sandwich Programme				
MHH330274	Mechanical Engineering Research Project	4	40	100% CW
MHH126675	Simulation for Design and Manufacture	4	20	100% CW
MHH122359	Engineering Design & Analysis 4	4	20	30% CW, 70% EX
MHH123523	Computer Aided Design 2	4	20	100%CW
OPTIONS (Choose 1 from 2)				
MHH323630	Design Process, Assembly and Manufacture	4	20	50% CW, 50% EX
MHH323524	Renewable Energy Equipment Design	4	20	30% CW, 70% EX
Exit with BEng (Honours) Degree in Mechanical Engineering (Design)				

Mechanical Engineering – Design MEng

Year 5 - SCQF 11 Full-Time Programme **Year 6** - Sandwich Programme				
Module Code	Module Title	Level	Credits	Assessment Method
MMH723842	MEng Team Project.	5	45	100% CW
MMN223676	Strategy & Innovation	5	15	50% CW, 50% EX
MMH323561	Applied Thermofluids & CFD	5	15	50% CW, 50% EX
MMH723672	Manufacturing Management	5	15	50% CW, 50% EX
MMH123668	Advanced Computer Aided Engineering	5	30	100% CW
Exit with MEng Degree in Mechanical Engineering (Design)				

Mechanical Engineering – Systems BEng

Year 3 - SCQF 9				
Module Code	Module Title	Level	Credits	Assessment Method
M3H606414	Control Engineering 3	3	20	30% CW, 70% EX

M3H721406	Manufacture & Materials 3	3	20	30% CW, 70% EX
M3H120320	Engineering Design & Analysis 3	3	20	30% CW, 70% EX
	EITHER			
M3J923150	Energy Conversion Technologies	3	20	30% CW, 70% EX
M3H623554	Integrated Engineering Studies 3	3	20	100% CW
M3H723623	Engineering Operations Management	3	20	30% CW, 70% EX
	OR			
M3H623747	European Project Semester	3	60	100% CW
Exit with BEng Degree in Mechanical Engineering (Systems)				
Year 4 - SCQF 10 Sandwich Programme [Optional for those students not previously on European Project Semester]				
M3H721925	Industrial Practice	3	60	100% CW
M3K226158-60	SSE Exchange	3	60	100% CW
Year 4 - SCQF 10 Full-Time Programme **Year 5** - Sandwich Programme				
MHH330274	Mechanical Engineering Research Project	4	40	100% CW
MHH113285	Computer Aided Engineering	4	20	100% CW
MHH122359	Engineering Design & Analysis 4	4	20	30% CW, 70% EX
MHH323630	Design Process, Assembly and Manufacture	4	20	50% CW, 50% EX
OPTIONS (Choose 1 from 2)				
MHH622747	Control Engineering 4	4	20	30% CW, 70% EX
MHH323524	Renewable Energy Equipment Design	4	20	30% CW, 70% EX
Exit with BEng (Honours) Degree in Mechanical Engineering (Systems)				

Mechanical Engineering – Systems MEng

Year 5 - SCQF 11 Full-Time Programme **Year 6** - Sandwich Programme				
Module Code	Module Title	Level	Credits	Assessment Method
MMH723842	MEng Team Project.	5	45	100% CW
MMN223676	Strategy & Innovation	5	15	50% CW, 50% EX
MMH323561	Applied Thermofluids & CFD	5	15	50% CW, 50% EX
MMH623670	Condition Monitoring	5	15	50% CW, 50% EX
MMH226690	Advanced Engineering Mechanics	5	15	30% CW, 70% EX
MMH126833	Digital Twins	5	15	100% CW
Exit with MEng Degree in Mechanical Engineering (Systems)				

7.2 PART-TIME STUDY MODE

Assumes entry with Advanced Standing equivalent to 120 Credits at Level 1

Mechanical Engineering PT – Design BEng

Year 1 PT - SCQF 7				
Module Code	Module Title	Level	Credits	Assessment Method
M2H720058	Manufacture & Materials 2	2	20	50% CW, 50% EX
M2H323512	Thermodynamics & Fluid Mechanics	2	20	30% CW, 70% EX
M1H323563	Engineering Mathematics	1	10	30% CW, 70% EX
M2H624585	Electrical Distribution Systems	2	10	50% CW, 50% EX
M2H721926	Engineering Design and Analysis 2	2	20	30% CW, 70% EX
Exit with CertHE Certificate of HE in Engineering				
Year 2 PT - SCQF 8				
M2H326684	Mathematics 2	2	20	50% CW, 50% EX
M3H721406	Manufacture & Materials 3	3	20	30% CW, 70% EX
M2H622325	Control and Instrumentation Systems	2	20	30% CW, 70% EX
M3J923150	Energy Conversion Technologies	3	20	30% CW, 70% EX
Exit with DipHE Diploma of HE in Mechanical Engineering				
Year 3 PT - SCQF 9				
MHH113285	Computer Aided Engineering	4	20	100% CW
M3H120320	Engineering Design & Analysis 3	3	20	30% CW, 70% EX
M3H723623	Engineering Operations Management	3	20	30% CW, 70% EX
M3H623554	Integrated Engineering Studies 3	3	20	100% CW
Exit with BEng Degree in Mechanical Engineering (Design)				
Year 4 PT - SCQF 10				
MHH330274	Mechanical Engineering Research Project	4	40	100% CW
MHH126675	Simulation for Design and Manufacture	4	20	100% CW
MHH122359	Engineering Design & Analysis 4	4	20	30% CW, 70% EX
MHH123523	Computer Aided Design 2	4	20	100%CW
OPTIONS (Choose 1 from 2)				

MHH323630	Design Process, Assembly and Manufacture	4	20	50% CW, 50% EX
MHH323524	Renewable Energy Equipment Design	4	20	30% CW, 70% EX
Exit with BEng (Honours) Degree in Mechanical Engineering (Design)				

Mechanical Engineering PT – Systems BEng

Year 1 PT - SCQF 7				
Module Code	Module Title	Level	Credits	Assessment Method
M2H720058	Manufacture & Materials 2	2	20	50% CW, 50% EX
M2H323512	Thermodynamics & Fluid Mechanics	2	20	30% CW, 70% EX
M1H323563	Engineering Mathematics	1	10	30% CW, 70% EX
M2H624585	Electrical Distribution Systems	2	10	50% CW, 50% EX
M2H721926	Engineering Design and Analysis 2	2	20	30% CW, 70% EX
Exit with CertHE Certificate of HE in Engineering				
Year 2 PT - SCQF 8				
M2H326684	Mathematics 2	2	20	50% CW, 50% EX
M3H721406	Manufacture & Materials 3	3	20	30% CW, 70% EX
M2H622325	Control and Instrumentation Systems	2	20	30% CW, 70% EX
M3J923150	Energy Conversion Technologies	3	20	30% CW, 70% EX
Exit with DipHE Diploma of HE in Mechanical Engineering				
Year 3 PT - SCQF 9				
M3H606414	Control Engineering 3	3	20	30% CW, 70% EX
M3H120320	Engineering Design & Analysis 3	3	20	30% CW, 70% EX
M3H723623	Engineering Operations Management	3	20	30% CW, 70% EX
M3H623554	Integrated Engineering Studies 3	3	20	100% CW
Exit with BEng Degree in Mechanical Engineering (Systems)				
Year 4 PT - SCQF 10				
MHH330274	Mechanical Engineering Research Project	4	40	100% CW
MHH113285	Computer Aided Engineering	4	20	100% CW
MHH122359	Engineering Design & Analysis 4	4	20	30% CW, 70% EX
MHH323630	Design Process, Assembly and Manufacture	4	20	50% CW, 50% EX
OPTIONS (Choose 1 from 2)				

MHH622747	Control Engineering 4	4	20	30% CW, 70% EX
MHH323524	Renewable Energy Equipment Design	4	20	30% CW, 70% EX
Exit with BEng (Honours) Degree in Mechanical Engineering (Systems)				

Notes

1. **The second year of the part-time programme has an uneven split of credits with 30 credits in Trimester A and 50 credits in Trimester B.**
2. **The Fifth year of the MEng programme is specifically designed for full-time undergraduate students. It is the intention, by design, that Part-time students would exit the BEng(Hons) programme and enrol on the equivalent professional body accredited MSc programme by part-time mode of study to enable completion of the Academic Requirements for CEng registration under UK_SPEC.**

[1] Periodically, programmes and modules may be subject to change or cancellation. Further information on this can be found on the GCU website here: www.gcu.ac.uk/currentstudents/essentials/policiesandprocedures/changesandcancellationtoprogrammes

Students undertaking the programme on a full-time basis commencing in September of each year will undertake the modules in the order presented above. This may be subject to variation for students commencing the programme at other times of year (e.g. January) and/or undertaking the programme on a part-time or distance learning mode of delivery.

The following final and early Exit Awards are available from this programme[3]:

Certificate of Higher Education in Mechanical Engineering- *achieved upon successful completion of 120 credits*

Diploma of Higher Education in Mechanical Engineering - *achieved upon successful completion of 240 credits*

Bachelor of Engineering in Mechanical Engineering - *achieved upon successful completion of 360 credits*

Bachelor of Engineering with Honours in Mechanical Engineering - *achieved upon successful completion of 480 credits*

Master of Engineering in Mechanical Engineering - *achieved upon successful completion of 600 credits*

8. ASSESSMENT REGULATIONS

[3] Please refer to the GCU Qualifications Framework for the minimum credits required for each level of award and the Programme Handbook for requirements on any specified or prohibited module combinations for each award.

Students should expect to complete their programme of study under the GCU Assessment Regulations that were in place at the commencement of their studies on that programme, unless proposed changes to University Regulations are advantageous to students. These can be found at: www.gcu.ac.uk/aboutgcu/supportservices/qualityassuranceandenhancement/regulationsandpolicies

In addition to the GCU Assessment Regulations noted above, this programme is subject to Programme Specific Regulations in line with the following approved Exceptions:

Case No: 45
Details: The Glasgow Caledonian University Undergraduate Assessment Regulations apply to this programme with exceptions for the Honours Classification Scheme and anticipated updates to the Integrated Masters Progression and Classification Scheme.

1) Classification of Honours Award as described in Section 19.7.1

5.1 Programme Specific Regulations for the Classification of Honours

5.1.1 Award of Honours statement to replace University Regulations Section 19.7.1

The award of Honours will normally be made on the basis of an overall amalgamated aggregate of a student's performance in the modules studied at Level 3 and Level 4 of their programme irrespective of the actual level of any particular module studied at these levels.
This final overall amalgamated aggregate will be determined from:
i) a 25% weighting obtained from an aggregate of the marks for the modules studied at Level 3 of their programme.
and
ii) a 75% weighting obtained from an aggregate of the marks for the modules studied at Level 4 of their programme.
In the case of the amalgamated aggregate falling within the profiling boundaries defined in Section 19.8 the profiling will be based on a calculation set of the Level 4 results only and will follow the model criteria for profiling as defined in Section 19.8.3.

2) Progression to Final Year of Integrated Masters and Classification Scheme

5.1Programme Specific Regulations for Progression to Integrated Masters and Classification Scheme.

Incorporation of specific amendments to the Glasgow Caledonian University Undergraduate Assessment Regulations to allow clarification of criteria for Progression to, and Classification of, Integrated Masters. This proposal was accepted by APC on 3 December 2014 subject to the provision of a transition timetable and the final text being put in place by the Assessment Regulations Working Group (ARWG).

In summary:

Entry to the final year of the Integrated Masters will require an average mark in year 4 of 50% or greater with module pass marks applied where modules are not passed at first attempt or compensated. If this criterion is not met, the student will be eligible to exit with a B.Eng. if they have met the university assessment regulations for a BEng. Honours award. All modules must be passed before progression to Integrated Masters.
As the Integrated Masters award is directly tied to the full satisfaction of the Academic Requirements of the relevant professional body associated with the programme, it is permissible for classification criteria for the Integrated Masters route to be specified at the approval stage (justified by sector norms and professional body requirements) and clearly specified in the programme documentation.
The Integrated Masters should be awarded as pass, merit or distinction, in line with the criteria for postgraduate master's awards. The pass mark for Integrated Masters awards will be 50%.

In the event that amendments are not incorporated then a request for exceptions will be made to address:

1. Module pass marks
2. Recording of marks at second attempt
3. Compensation rules
4. Combinations of exam and coursework elements
5. Essential elements for Professional, Statutory or Regulatory Body requirements
6. Consequential effects of module pass marks
7. Nullification of the results of an assessment of a single module
8. Carrying of modules to Integrated Masters' level
9. Progression to final year of Integrated Masters.

VERSION CONTROL (to be completed in line with AQPP processes)
Any changes to the PSP must be recorded below by the programme team to ensure accuracy of the programme of study being offered.

Version Number	*Changes/Updates*	*Date Changes/Updates made*	*Date Effective From*
2.0	Transferred to new PSP template due to replacement of Sustainable Materials and Manufacturing Processes (MMH630508) with Digital Twins (MMH126833)	Mar 2026	Sept 2026