

1.	Title of Programme(s): (incl. Award Type and Specify Embedded Exit Awards)	MSc in Medical Science Certificate in Medical Science The Certificate programme will also act as an exit award for the MSc programme.
2.	NFQ Level(s)/ No. ECTS:	9 Masters: 90 ECTS, Certificate: 35 ECTS
3.	Duration:	MSc: 2 years Certificate: 1.5 years
4.	ISCED Code:	0914
5.	School / Centre:	School of Science and Computing
6.	Department:	Department of Biopharmaceutical and Medical Science
7.	Type of Review:	New Programme
8.	Date of Review:	17 th June 2021
9.	Delivery Mode:	Online
10.	Panel Members:	<ul style="list-style-type: none"> • Dr Michael Hall, Head of School of Health and Social Sciences, Munster Technology University • Dr Michelle Griffin, Chief Medical Scientist, Histology Laboratory, University Hospital Waterford • Dr Brigid Lucey, Head of Department of Biological Sciences, Munster Technological University • Dr Michael Carty, Assistant Professor (Biochemistry), Trinity College Dublin • Prof Fernando Mendes, Unidade Científico-Pedagógica de Ciências Biomédicas Laboratoriais • Ms Carmel Brennan, Head of Academic Quality, GMIT (Secretary)
11.	Proposing Staff:	<ul style="list-style-type: none"> • Dr Des Foley • Dr Eugene McCarthy • Dr Eleanor Rainsford • Ms Mary McGrath • Dr Debbie Corcoran



		<ul style="list-style-type: none"> • Dr Brian Moran • Dr Helen Cregg • Dr Joan O’Keeffe • Dr Karen Finn • Dr Sharon Duffy • Dr Terri Muldoon
12.	<p>Programme Rationale:</p>	<p>The proposed programme aims to address the future skills and competences requirement of the health workforce both nationally (National Skills Strategy, 2025) and in Europe (Fellow and Edwards, 2016) in response to an ageing population, increases in the number of people living with chronic diseases and the greater demand for higher quality and more personalised care. The proposed programme will address some of these unique challenges posed by the sector by the provision of skills pertinent to the Medical Science profession through the delivery of suite of modules, namely ‘Advanced laboratory techniques; Molecular diagnostics and Bioinformatics, Medical Microbiology and Infectious Diseases, Clinical Biochemistry, Transfusion and Transplantation Science, Advances in Haematology, Cellular Pathology, Design and Analysis of Experiments; Research Methods and Research project’. Moreover, the medical science practice is highly regulated with stringent guidelines on the legal, ethical, and quality standards pertaining to the clinical laboratory profession. To address this, students will be trained in Applied Quality Management for the Clinical Diagnostic Laboratory and Clinical Operations Management. The Research project and Research Methods modules will enhance learner’s knowledge of research ethics, literature review methodology, problem-solving, data analysis, scientific communication and development of research proposals.</p> <p>The proposed programme will also allow for continued reform and innovation in higher education provision. The Department of Biopharmaceutical and Medical Science has an award-winning track record in blending traditional learning with online resources. In this course, the online approach will facilitate increased access to third level education for lifelong learners, while maintaining GMIT’s strategic emphasis on enabling graduates to advance their careers. The highest performing healthcare systems have research embedded in service delivery and produce innovation and outcomes that are of benefit to patients, enterprise, the nation’s health, and the taxpayer as funder. The proposed master’s programme will develop and retain high-quality health professionals in our Healthcare system and will further enhance a vibrant research-active delivery system in Ireland.</p>

13.	Proposed Student Intake Number:	16-20
14.	Stakeholder Engagement:	Demand for this proposed programme was initially identified through the Medical Science stakeholder liaison committee which informs the delivery of the BSc (Hons) in Medical Science and through the Academy of Clinical Science and Laboratory Medicine. Further consultation with clinical partners was carried out, which was facilitated through a detailed questionnaire and one-to-one consultations.
15.	Graduate Demand:	<p>The MSc in Medical Science will future proof graduates with relevant skills for research and development for the Healthcare sector.</p> <p>The MSc in Medical Science will equip graduates with necessary skills to ensures that future needs of the profession within the Healthcare sector are met. Data collated from the questionnaire and consultation expect graduates to fill roles in:</p> <ul style="list-style-type: none"> - Chief Medical Scientist - Laboratory Manager - Senior Medical Scientist - Specialist Scientist - Senior Scientist <p>Stakeholders have also indicated the proposed MSc in Medical Science would qualify people for leadership roles in R&D outside the medical science profession.</p>
16.	Entry Requirements, Access, Transfer & Progression:	<p>Candidates must hold a H2.2 Bachelor degree at level 8 in Medical Science or equivalent. Learners enrolled must be practising medical scientists (CORU registered) in a clinical setting.</p> <p>Candidates will require a score of 6.0 in IELTS or equivalent to meet the English language requirements for entry to this programme.</p>

17.	Programme Structure:	
18.	Learning, Teaching & Assessment Strategies:	<p>Students will be supported in their learning in a collaborative learning environment. The programme team plan to integrate the use of circle style peer support meetings and group projects into module delivery in addition to Student-centred teaching strategies will maximise problem-based learning focussed on real-world scenarios relevant to the discipline.</p> <p>A variety of teaching modalities fit to the content of a course will be used; Lectures (live online and recorded): provided by academic & research staff. Seminars/workshops/networking events: a session in which a specific topic fitting the scope of the course is discussed by an expert in the field. Research based learning: learning from being both actively and passively involved in a research activity.</p> <p>The variety of assessment methods employed will ensure that students with a wide range of learning styles will be facilitated. Assessment methods will be designed to be authentic in nature and include, case studies, written technical reports/assignments, oral presentations, statistical analysis and literature analysis. Formative assessment will be ongoing throughout the modules and the use of rubric based assessments will support student learning. Formative assessment methods such as self/peer assessment are included to ensure that ‘assessment for and as learning’ is embedded in the programme.</p>
19.	Resource Implications:	<p>18 hours per week are required to deliver this programme,</p> <p>This programme will be delivered on a self-financing basis.</p>

20.	Synergies with Existing Programmes:	Two of the research focussed modules are shared with other postgraduate programmes in the School of Science and Computing.
21.	Findings and Recommendations:	Commendations (if any):
		<p>The panel commended the proposers on:</p> <ol style="list-style-type: none"> 1. Clarity of the documentation presented. 2. Providing a practical way for working medical scientists to obtain a high-quality masters. 3. The integration of transferrable skills in the programme which will facilitate students in up- and re-skilling. 4. Provision of CPD opportunities for medical scientists in line with CORU requirements. 5. Profile of the development team and their convincing ability to deliver the programme. <p>The programme was approved subject to the following condition(s) (5) and recommendation(s) (15).</p>
		Special conditions attaching to approval (if any):
		<ol style="list-style-type: none"> 1. Clarify the entry requirements for the programme in the documentation. Specify the English language entry requirements. 2. Make explicit the electives that are available at each point of entry based on minimum required numbers to deliver each elective. 3. Ensure that the facilities required to deliver the programme are available, for example space to record and deliver online modules and the provision of online reading materials. 4. Build in milestones for students during the Research Project in Medical Science module providing formative feedback to students. 5. Ensure that students are provided with a Research Project manual.
		Recommendations of the panel in relation to award sought:

		<ol style="list-style-type: none"> 1. The delivery mode for the programme should be defined as online rather than blended in the documentation. 2. Specify equivalent entry requirements for students from other jurisdictions. 3. The development team should establish how the workplace supervisors will be selected and trained to ensure the quality of supervision experience is appropriate and consistent for students. 4. Consider the establishment of a learning community of practice for workplace supervisors, providing support and information as required at relevant times during the research project. 5. Review the Programme Assessment Strategy ensuring that students are not over-assessed. Integrated assessments, as discussed will assist in this regard. 6. Ensure that there are sufficient opportunities for group projects and group learning to allow for building community among the student cohort in light of the online delivery of the programme. 7. Identify the supports that may be required by academic staff and learners for engagement with this programme and ensure that they are available. 8. Where practicable students should be given the opportunity to see demonstrations of high-tech instrumentation in use. 9. Distinguish between the requirements of a 50 ECTS thesis and a 30 ECTS thesis in terms of the quantum of work or output. 10. Develop a programme wide policy for content presentation and delivery. 11. The Programme Handbook should include the technical requirements for computer equipment and software that students require for engagement with the programme. Induction should be provided for students at the commencement of the programme. 12. There should be a clear and visible continuation of learning from the five-credit molecular diagnostics and bioinformatics module into applications in each of the elective, discipline-specific modules. <p>Module specific recommendations:</p> <ol style="list-style-type: none"> 1. MEDI09012 Research Project in Medical Science: Remove reference to GMIT's Professional Practice Policy. 2. MEDI09006 Applied Quality Management for the Clinical Diagnostic Laboratory: Remove one continuous assessment. Review the required reading list with a view to making it more focussed.
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		3. MEDI09008 Clinical Laboratory and Project Management: Consider whether someone with a business background should contribute to the teaching of this module.	
22.	FAO: Academic Council:	Approved:	
		Approved subject to recommended changes:	X
		Not approved at this time:	
	Signed:		
		Chair: Dr. Michael Hall	Secretary: