

VALIDATION REPORT

1.	Title of Programme(s): (incl. Award Type and Specify Embedded Exit Awards)	MSc in Design and Innovation Postgraduate Diploma in Design and Innovation (exit award) Certificate in Design and Innovation (exit award)			
2.	NFQ Level(s)/ No. ECTS:	90 ECTS (MSc) 60 ECTS (PG Dip – exit award) 30 ECTS (Certificate – exit award)			
3.	Duration:	1 stage			
4.	ISCED Code:	0710			
5.	School / Centre:	School of Engineering			
6.	Department:	Department of Mechanical and Industrial Engineering			
7.	Type of Review:	New Programme			
8.	Date of Review:	13 th May 2019			
9.	Delivery Mode:	Blended			
10.	Work Based Learning	Work Placement		Work Based Project	X
		No. ECTS		No. ECTS	30
11.	Panel Members:	Dr Naill Seery, AIT (Chair) Dr Linzi Ryan, Maynooth University Dr PJ White, IT Carlow Mr Karl Dooher, Medtronic Ms Carmel Brennan, GMIT (Secretary)			
12.	Proposing Staff:	Mr Gerard MacMichael Dr Patrick Tobin Dr Carine Gachon Dr Gabriel J Costello Mr Ivan McPhillips Ms Emer Cahill Mr Donal Loftus			
13.	Programme Rationale:	“Winning by Design” is a November 2017 report by the Expert Group for Future Skills Needs on the design skills required for firms to be innovative and competitive in global markets. According to the report “developing a strong design capability and increasing the engagement in design-driven innovation in the wider enterprise base will not only help to retain, attract and nurture design talent in Ireland but more importantly will attract and retain foreign direct investment and grow indigenous enterprise” (EGFSN, 2017).			

	<p>According Tony Donohoe, Chairman of the EGFSN, “today design thinking informs the strategies of major organisations and is being used to create innovative services, to address social issues and even to shape better public services and policy-making”. A core recommendation of Irish Design (2015) was that the “integration of design thinking into all third level education” was critical to the future of the industry.</p> <p>Design Thinking is having an increasing influence on design and innovation teaching and research. Design Thinking has its academic origins in the Stanford School of Mechanical Engineering in the 1970s. Now it integrates business, law, medicine, the social sciences and humanities into more traditional engineering and product design education. The Design Thinking model used by the Hasso-Plattner Institute of Design at Stanford (d.school, 2018) consists of five stages: Empathise, Define (the problem), Ideate, Prototype, and Test.</p> <p>A number of recent industry reports conclude that Design Thinking is moving into the curriculum of top business schools. These include Stanford GSB's Design Thinking Bootcamp, UC Berkeley Haas' Design Thinking for Business Innovation course and INSEAD's Innovation by Design Programme. In the sphere of industry, McKinsey and Co and IBM have recently made appointments at their most senior levels for designers. Both the 2015 and 2016 Design in Tech Report pointed to the emergence of “design thinking” as entering the conscious of big business - heralded by the covers of both Harvard Business Review and Bloomberg Businessweek featuring design (designintech, 2017).</p> <p>Innovation 2020 is Ireland most recent publication outlining the government’s strategy for Research and Development, Science and Technology (Innovation 2020, 2015). The document presents a vision that Ireland will become a Global Innovation Leader driving a strong sustainable economy and a better society. This will involve the development of a strong innovative and internationally competitive enterprise base, growing employment, sales and exports. This Masters programme is designed to support this vision in a practical way.</p> <p>Innovation is now a major focus for organizations, regions and economies and the subject is increasingly seen as being crucial not only to success but to survival. According to</p>
--	---

		Brynjolfsson & Saunders (2009, p. ix) the fundamentals of the world economy indicate that there will be a continuation of innovation “through the booms and busts of the financial markets and of business investments” (p ix). As Becerra (2009) points out innovation “is the oil of our economic system that keeps it continually running in search for greater value to customers” (p. 123).
14.	Potential Demand for Entry:	Design and Innovation is having an increasing impact not only on the world of product and service design but on a broad variety of disciplines as far afield as IT, Business, Education and Medicine (Dorst, 2011). As a result, the proposed programme would have the capability of attracting students from a wide area of academic fields and employment circumstances. Feedback received during the research phase indicated the support from employers for this discipline and expressions of interest in pursuing the programme.
15.	Stakeholder Engagement:	As part of the process of developing this programme, input was sought from a range of sources. Consultation types included face to face meetings, telephone conversations and written correspondence. Ideas and opinions were sourced from local and national, indigenous and multinational businesses.
16.	Graduate Demand:	A major potential of this programme will be to provide opportunities for the upskilling and future proofing of a wide variety of people currently in employment. (Examples include Design Professionals, Product Managers, Entrepreneurs, Decision Makers in research and development (R&D), Education Management Professionals, Marketing professionals, Creative Sector Professionals, Public Service Professionals, Not For Profit Professionals, Software Developers, and Architectural Professionals). The ability to collaborate in cross-functional teams from varied backgrounds and deliver innovative and timely solutions is a feature of modern organisations, both public and private. This programme will serve to equip its graduates with the skills necessary to operate in this challenging environment.
17.	Entry Requirements, Access, Transfer & Progression:	<p>Minimum Entry Requirements H 2.2. in a level 8 Bachelors qualification.</p> <p>English Language Requirements IELTS 6.0 (min 6.0 in each component)</p>

		<p>Recognition of Prior Learning Recognition of Prior Learning (RPL) may be used to gain entry to the programme or gain credits/exemptions in accordance with GMIT's RPL Policy.</p> <p>Further details of entry requirements are articulated in the programme document.</p>
18.	Programme Structure:	30 ECTS, consisting of three 10 ECTS modules will be delivered in the first semester, followed by a 30 ECTS Design Innovation Project which will run concurrently with a 30 ECTS Dissertation module.
19.	Learning, Teaching & Assessment Strategies:	<p>This programme's educational philosophy is Aristotle's Taxonomy of Knowledge Development – episteme, techne and phronesis. Pedagogy will follow Laurillard's Conversational Framework which describes the conditions necessary for learning to take place i.e. acquisition, inquiry, practice, production, discussion and collaboration. The programme will be delivered using a blended approach using methodologies such as webinars, flipped classroom, workshops, peer learning, active learning, team-based learning, project-learning, student centred discussions, online forums/reflections and blogs, independent enquiry-based learning, micro teaching techniques. creation of e-portfolios and mentoring circles.</p> <p>All modules will be assessed using continuous assessment/projects. A variety of assessment methodologies will be used including case studies, presentation, reflections, essay, and project.</p>
20.	Resource Implications:	This programme will be self-funded. Whilst there is capability in the Institution to deliver the programme, back filling of all hours will be necessary. Guest lecturers will be used on this programme and team teaching will be used for the Design Innovation Project module. Other costs of programme delivery include technician hours, administration, class materials, promotion and staff development.
21.	Synergies with Existing Programmes:	None.
22.	Findings and Recommendations:	<p>General: This taught MSc programme was approved subject to the following conditions and recommendations:</p>

		<p>Special conditions attaching to approval (if any):</p> <ol style="list-style-type: none"> 1. The responses to this report and corresponding updated documents must be submitted to the validation panel for approval, before this programme is finally approved. 2. The unique selling point and focus of this masters programme need to be articulated more precisely. 3. Clarify and represent the themes which demonstrate the focus of this masters in the documentation, as this will be useful to target markets. It will also allow for definitions of problem areas, and will determine prioritisation of skills in foundation modules, which in turn will help define these research questions. 4. Create a user journey for students progressing through the programme identifying the inputs and outputs for each module, and how they will support and prepare students for the next stage of the programme. 5. Define the entry requirements more clearly, specifically in relation to the amount and nature of work experience required by potential participants. The requirement stipulated should ensure that while the background disciplines and employment roles of applicants may differ that all have experience of design.
		<p>Recommendations of the panel in relation to award sought:</p> <ol style="list-style-type: none"> 1. The programme team should visit sites which deliver undergraduate and postgraduate design innovation programmes, to discuss and learn from their experiences. 2. The justification would be strengthened by a passage on Design Driven Innovation, rather than addressing design and innovation as two different elements. 3. The regional need for the masters should be clearly articulated in the justification for this programme. 4. Review the appropriateness of the programme duration in light of the ECTS attached to it, and the fact that the target cohort are likely to be in full-time employment. In accounting for the student workload, the integration of some of the student assessment with their employment could be considered. 5. Define the metrics for student success in this programme (e.g. economic or social change). 6. Develop indicative case studies and design briefs which will assist in clarification of the focus of the programme. 7. Protect the integrity of the concept of diverse cohorts of students working together in groups, whilst recognising

		<p>problems which may arise and identifying ameliorating solutions.</p> <ol style="list-style-type: none">8. Grading to allow for the classification of the award should be considered. If it is decided not to classify the award a comprehensive justification should be provided in light of the potential consequences for graduates.9. Articulate the mechanisms that will be put in place to ensure that students are supported in their Dissertation and Design Innovation Project during the summer months.10. Given that this programme has been developed by a number of Schools, develop a governance structure that will ensure that the resources (human, technical, facilities etc.) required will be made available as required and planned.11. Review the 'Research Methods for Design and Innovation' module to ensure that action-oriented research is included (e.g. ethnography, case study) and removing elements that are less relevant to the nature of this programme.12. Clarify the nature of the research and the output of the dissertation module, and specifically the academic journal article, in light of the focus of the programme and the target cohort.13. Clearly articulate how and when the teams for the Design Innovation Project will be formed and when the research question will be formulated.14. Ensure that each student is consulted individually in relation to their expectations and aspirations from the programme, so that they will influence the programme teaching, learning and assessment.15. Articulate the consequences of a student failing to reach the required standard in the development of the dissertation proposal and implications for their progression and work with other students.16. Clarify the prototype building facilities that are available to students and how students will be able to access these.17. Review modules to ensure that they are content as well as process focused.
--	--	--

23.	FAO: Academic Council:		
		Approved:	
		Approved subject to recommended changes:	
		Not approved at this time:	
	Signed:		
		Chair	Secretary