New Programme (Major Award) External Validation Report

Section A

Report of the External Review Panel

Programme Reference Number:	
Faculty/School(s):	Faculty of Engineering and Technology
Department(s):	Department of Electronic and Mechanical Engineering

Details of Programme(s) Reviewed

Title:	MSc in Engineering Management
Type of Award:	Major
NFQ (National Framework of Qualifications) Level:	Level 9
ECTS:	90 ECTS
ISCED:	0410
Duration:	1 Year
Proposed Student Intake:	25
Proposed Start Date:	January 2024
Delivery Mode(s):	Blended

Title:	Postgraduate Diploma in Engineering Management
Type of Award:	Major
NFQ Level:	Level 9
ECTS:	60 ECTS
ISCED:	0410
Duration:	9 months
Proposed Student Intake:	25
Proposed Start Date:	January 2024
Delivery Mode(s):	Blended

Date of Review:	14 June 2023

Review Panel

Panellist Role	Title	Name	Organisation	Job Title
Chair	Dr	Christian Horn	Dundalk Institute of Technology	Retired Head of Department of Computing Science and Mathematics
External Academic Discipline Expert	Dr	Donato Masi	Aston Business School	Senior Lecturer in Operations Management
External Academic Discipline Expert	Mr	Paul O'Reilly	Technological University Dublin	Head of GROWTHhub
Industry/ Community Representative	Mr	John Roulstone	KIRCHHOFF Automotive	Operations Manager
Student Representative	Ms	Ruth Keogh	ATU	Student
Vice President for Academic Affairs and Registrar (VPAAR) Nominee (Academic Secretary)	Ms	Carmel Brennan	ATU	Assistant Registrar

All external members of the panel have declared that they are independent of ATU (Atlantic Technological University), and all have declared that they have no conflict of interest.

Programme Design Team

The panel met the staff listed below during the review process.

Dr Thomas Dowling	Dr George Onofrei
Charles Young	Dr James Connolly
Dr Aurora Dimache	Mary Malone
Dean Harron	Dr Kevin Meehan
Louise O'Gorman	

Introduction

The MSc in Engineering Management programme was developed to meet the needs of both local and national industry and the requirements of the student cohort at the Atlantic Technological University. It focuses on the increasing development and use of management engineering skills in the modern diverse engineering environment.

This MSc course will be of particular interest to engineers who wish to maximise organisational efficiencies, manage supply chains, lead teams, deliver large projects, use advanced analytics techniques to extract knowledge from valuable data and effectively communicate justified research supported directive decisions.

See Appendix for Entry Requirements, Programme Learning Outcomes and Approved Programme Schedule.

Rationale for Programme(s)

The engineering industry is a significant contributor to the Irish economy, and there is a need for professionals with technical knowledge along with business leadership skills to manage engineering projects and teams. According to the Irish government's website Enterprise Ireland, the Irish Engineering sector is a significant contributor to the economy, with over 1,200 companies operating and employing over 60,000 people. This highlights the potential demand for engineering management professionals. Additionally, the Irish government has made significant investments in the engineering sector to promote its growth, which is expected to create additional job opportunities for engineering management graduates in the coming years. A significant aspect of the engineering skillset is in the production sector with Industry 4.0 being a primary focus with the government having launched a strategy for 2020 to 2025 to help Irish industry transition. Education at all levels is therefore required and central to the government's strategy with a particular focus on post-graduate training.

A survey was conducted with local engineering employers to establish the relevance of the proposed programme with respondents asked about potential content and likely market for the programme. More than 70 surveys were submitted, 8 follow-up emails of inquiry were received and 39 contributions to content were made. Two interviews were conducted with engineering managers from the Civil/Construction & Mechanical/Electronic sectors who either employ engineering managers or upskill employees to management level. The most significant taking from this industrial engagement was the extensive level of interest expressed in the proposal and the preference for inclusion of Project Management, Leadership and Lean based modules.

Validation Criteria

ATU's Developing and Validating New Taught Programmes Policy specifies that new programmes must comply with the following criteria for validation:

1. The programme aims and learning outcomes are clear and aligned with the proposed award title.

2. The rationale for the programme is well informed and justified.
3. The design of the programme is suitably structured and fit for purpose.
4. The design of the programme ensures that students can successfully achieve the Programme Learning Outcomes.
5. The teaching, learning and assessment strategy is well planned and appropriate for the discipline area and type of award.
6. Assessment techniques are fair, valid, reliable, consistent and a credible measure of the academic standard attained by students.
7. The planned resources, including staff, physical, online, library and student supports, sufficiently support the teaching, learning and assessment strategy for the programme.
8. The programme facilitates lifelong learning for a diverse student population by setting out appropriate entry requirements and opportunities for access, transfer, and progression.
9. There is demand for potential graduates from the programme.
10. The learning environment and mode of delivery are consistent with the needs of the intended students of the programme and accessible, and appropriate support services for students have been provided for.
11. Students will be well informed on the requirements of the programme, guided to relevant resources and supported in their studies in a caring environment.

Findings

Overall Finding

Validated without changes	
Validated subject to condition(s) and/or recommendation(s)	**X**
Rejected	

Reason for Overall Finding

Having reviewed the documentation provided and met with the Programme Development Team, the panel concludes that the programmes listed are fit for purpose and comply with the validation criteria stipulated.

Commendations

The Validation Panel advises Academic Council of the following commendations.

1. This is a timely proposal which reflects industry requirements.
2. The Panel wishes to praise the engagement of staff in the development of the programme.

Conditions

The Validation Panel advises Academic Council that subject to satisfying any condition(s) detailed below, the panel is satisfied that the proposed programme(s) meets the validation criteria as set out in Atlantic Technological University's Developing and Validating New Programmes Policy.

None.

Recommendations

The panel advises Academic Council that the Programme Development Team and/or the Department should take cognisance of any recommendations outlined below.

1. As approval is sought for part-time as well as full-time delivery the panel strongly recommends that the programme team include an overview of the the indicative sequence and timeline for part-time delivery of the programme (Section 9, p.71 and Section 6, p.35)
2. Ensure that an appropriate repeat assessment statement is included for all modules (in particular Sections 8.4, 8.7, 8.8). Revise the wording of the repeat assessment strategy for all taught modules (Sections 8.1-8.6) stipulating that students will undertake a repeat assessment covering the required module learning outcomes.
3. Revise the wording of Module Learning Outcomes 6 and 7 for the Dissertation module to clearly articulate the outcomes the student will achieve in regards quantitative and/or qualitative research.
4. Consider moving the submission date for the 60% Strategic Leadership assessment from week 12 to week 13 to ensure a better spread of deadlines.
5. Review the indicative content regarding innovation management and its assessment in the Strategic Leadership module.
6. Reflect sustainability in the Programme Learning Outcomes given its inclusion across modules.

Report Approval

This report has been agreed by the review panel and is signed on their behalf by the chairperson.

Signed:	Date:
Dr Christian Horn Validation Panel Chair	14th June 2023