New Programme Validation Report

Report of the External Review Panel

Programme Reference Number:	12
Faculty/School(s):	School of Business
Department(s):	Department of Enterprise and Technology
Type of Review:	External Panel

Details of Programme(s) Reviewed:

Title:	Award Type:	NFQ Level:	ECTS:	Duration:	Delivery Mode:	Proposed Student Intake:	Proposed Start Date:
Master of Science in Business Analytics	Major	9	90	1 year	Full-time, part-time	20	September 2025
Postgraduate Diploma in Business Analytics	Major	9	60	1 year	Full-time, part-time	20	September 2025
Postgraduate Certificate in Business Analytics	Minor	9	30	1 year	Full-time, part-time	20	September 2025

Date of Review:	16th December 2024

Review Panel

Panellist Role	Title	Name	Organisation	Job Title
Chair	Dr	Brendan Ryder	Dundalk Institute of Technology	Head of Academic Planning and Quality Assurance
External Academic Discipline Expert	Ms	Farrah Higgins	TU Dublin	Lecturer
External Academic Discipline Expert	Dr	Ali Kashif Bashir	Manchester Metropolitan University, UK	Professor
Industry/ Community Representative	Mr	Fergal O'Connor	BuyMedia	CEO/Founder
Student Representative	Mr	Mallikharjuna Rao Sakhamuri	ATU	Student Representative

Vice President for Academic Affairs and Registrar Nominee (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 Seamus Lennon	Dr Meghann Drury Grogan
Kevin Derrane	Dr Muslim Jameel Syed
Noreen Henry	Phelim Murnion
Dr Rachel Shaw	Michael Kelly

Introduction

The aim of the Master of Science in Business Analytics is to provide learners with advanced specialised technical and research skills and competencies in business analytics. Business analytics is the repeated examination of an organisation's data with an emphasis on using statistical analytical tools and techniques to uncover insights to support innovation, decision-making and overall success in assessing and enhancing the performance of vital operations.

Participants will be able to lead and implement appropriate analytics solutions to inform decisions in a business environment on complex management, technical and functional areas relating to organisations, products, processes, and services.

Graduates from this programme will be able to take on a variety of business analytics roles while also equipping graduates with the technical and transversal skills necessary to manage, analyse and explore data that will underpin and sustain the workplace of the future. The proposed programme provides a strong foundation in a range of disciplines core to business analytics and business Intelligence, namely, databases, statistics, automation, and data visualisation. As such, graduates will possess skills applicable to a wide array of industry job opportunities.

Rationale for Programme(s)

The programme team conducted desk and primary research which both evidenced the need for this programme and informed its structure and content. This research included in-depth analysis of national and international reports, examination of the jobs market and current vacancies, consultation with ATU partners, market research on similar programmes offered by competitors, as well as consultation and surveys of current ATU learners and industry members.

At a global level, the World Economic Forum's Future of Jobs Report 2020 (pg. 36) identifies "Analytical thinking and innovation" as the top skill for 2025, underscoring the growing importance of analytical capabilities in the evolving jobs market. This trend is reflected in the top three increasing job roles: 1. Data Analysts and Scientists, 2. AI and Machine Learning Specialists, and 3.

Big Data Specialists (pg. 30). This coincides with recent data underscoring a significant surge in the adoption of AI and digital technologies across organisations worldwide. According to a McKinsey Global Survey conducted in early 2024, 72% of respondents reported that their organisations had integrated AI into at least one business function, a notable increase from 50% in previous years. The adoption of generative AI has also accelerated rapidly. The same McKinsey survey indicates that 65% of organisations were regularly using generative AI in 2024, a substantial rise from 33% in 2023. A Microsoft report reveals that 66% of business leaders would not hire candidates without AI skills, underscoring the critical need for digital proficiency in the modern workforce.

Looking at the international skills market, a 2024 report from LinkedIn had problem-solving, analytics and research within their global inventory of the top 10 most in-demand skills for 2024. LinkedIn's research states that "In the age of AI at work, both leaders and employees will be asked to meet new challenges and solve new problems more often than ever. Applying critical thinking and strategy to challenging problems can help teams thrive". Comparably, a more recent report from LinkedIn highlights the top 10 in-demand jobs to watch for in 2025. It reflects the growing demand for data-related jobs and skills, particularly in analytics, as the workplace transforms due to automation, digitisation, and technological advancements. By 2025, automation is expected to eliminate millions of repetitive, manual jobs, while creating new roles in fields like artificial intelligence, data analysis, and cybersecurity. The emphasis on data scientists and analysts reflects the critical role of data in business decision-making, making these professionals highly sought after. The rise of automation increases the need for individuals proficient in data-driven roles, underlining the importance of acquiring analytical skills to stay competitive in the evolving jobs market.

Similarly, at a national level, the National Strategy for Higher Education to 2030 emphasises the importance of core skills such as quantitative reasoning, critical thinking, and the effective use of information technology. These skills are foundational to the discipline of business analytics, where professionals are tasked with extracting actionable insights from complex datasets to drive strategic decision-making. Furthermore, the report recognises mathematics and science as central to addressing future skills needs. Analytical skills are often closely associated with these disciplines, highlighting the significance of analytical methodologies and data-driven approaches in addressing contemporary business challenges. The Critical Skills Occupations List (DETE) specifically highlights the demand for business analysts specialising in big data analytics, reflecting the national focus on addressing skills shortages, particularly in ICT and analytics, as outlined in the National Skills Strategy 2025. The Expert Group on Future Skills Needs (EGFSN) has identified Artificial Intelligence (AI) as part of a suite of digital technologies which are already becoming critical drivers of productivity and competitive advantage for Ireland that will affect virtually every sector of the economy and society. This raises skills related issues particularly in the area of mid-range dual-skilled workers, able to combine AI and related analytics skills with domain-specific business knowledge.

In addition, the Skillnet Ireland Talent Landscape report 2024 states that 61% of Irish businesses believe that their core business skills are likely to change in the next two- three years, with 45% of large companies noting that they expect to see their need for employees who have Big Data Analytics to grow over the next two – three years, and 42% noting an anticipated need for employees with a skill set in Artificial Intelligence. This speaks to a need for the dual skill set of analytical capabilities and artificial intelligence.

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

The panel is satisfied that the programme meets the validation criteria and is recommending approval to ATU's Academic Council subject to the condition(s) and recommendation(s) provided below.

The proposing team justified the need and demand for the programme. The documentation provided justified and explained the programme. The panel notes that the staff teaching on the Higher Diploma in Business Analytics will be diverted to teach on this programme, ensuring that appropriately qualified staff is for delivery. Resources beyond those required to teach the programme and the provision of supervision at the ATU approved rate, will require internal approval.

Commendations

The Validation Panel advises Academic Council of the following commendations.

1. Staff engagement and interaction with the Panel during the virtual validation event. There is clear passion and enthusiasm for the programmes that were presented.
2. The School for developing a Level 9 offering in the areas of Business Analytics, which provide a progression pathway for students, that meets the needs of industry and is aligned with the University's strategic objectives (expanding postgraduate offerings).
3. The student-centred focus in the programme, the variety of assessments and also the considered adoption of integrated assessment. The Panel note the incorporation of the "Symposium" into the "Applied Project" and also the use of pair programming in the "Programming for Analytics" module.
4. The inclusion of the module AI and Emerging Technologies was welcomed given its topicality and necessity for graduates.
5. Comprehensive programme submissions provided to the Panel.

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.

1. Entry requirements should be further reviewed to ensure that the disciplines listed for access are appropriate and provide a basis for a student to be able to undertake the programme successfully. Additional supports should be considered where students meet the minimum requirements but lack specific skills (e.g., numeracy skills, technology skills). Clarify that there are no relevant transfer routes for this programme and provide details of specific doctoral programmes in the progression section.
2. Include explicit reference(s) to the ATU award standard(s) adopted on the programme, as appropriate. The level 9 business standards are mentioned on pg. 10 of the main curriculum document but not in the PLOs section. The programme development team should consider if there are other award standards (e.g., Computing) that are relevant for the programme given the programme's focus and content (i.e., this is an "Master of Science" award).
3. Include a diagram in the programme documentation providing the proposed part-time delivery of the programme in terms of duration and sequencing of modules. Highlight dependencies between modules in the Approved Programme Schedule (APS) special regulations to ensure that part-time students are not disadvantaged.
4. Provide additional information in the programme documentation on the proposed blended and online delivery modes for the programme. Further detail should be provided in relation to the student experience, teaching and learning, student support and the delivery of the programme for blended and online learning. The updated documentation highlighting changes must be submitted to the Quality Office who will review with the Chair of the panel.
5. Further review the Module Learning Outcomes (MLOs) to ensure they are at NFQ Level 9. The MLOs should reflect the advanced knowledge, skills, and competencies expected at Level 9, emphasising higher-order cognitive skills such as critical analysis, synthesis, evaluation, and problem-solving.

6. Ensure that the duration of all modules are in accordance with ATU norms (i.e. 15 weeks) in the programme documentation. Review module delivery to ensure that the breakdown of delivery activities is accurately represented in each instance.
7. AI and Emerging Technologies (COMP09044 2025) module: The programme development team should consider renaming this module (e.g., AI for Business Analytics). The scope and associated content of the module needs to be reviewed as the panel were of the view that the scope was too broad.

Recommendations

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

1. Indicate how the programme assessment design was considered in the context of Generative Artificial Intelligence (AI). Also, ATU's quality assurance guidance should be referenced in the programme documentation as appropriate, including how non-invigilated assessment will be assured (AI declaration forms were mentioned during the validation event).
2. Ensure that the planned industry involvement in the programme is evident in the programme documentation and module content e.g. guest lectures, site visits, industry-based projects (as articulated during the validation event).
3. Describe how programme changes are made to programmes in accordance with ATU quality assurance policies and procedures (section 6.6 Programme Management)
4. Modules:
    a. Advanced Data Management and Analytics (BUST09050 2025): Consider whether 'advanced' is appropriate in the module title given the indicative content.
    b. Research Methods (BUST09051 2025): Indicate that students will have to define the research problem as part of the module in advance of formulating research questions.
    c. Programming for Analytics (BUST09047 2025): Consider renaming the module as "Programming for Business Analytics" to better reflect its focus and orientation.
    d. Applied Project (THES09015 2025):Develop a project handbook that will complement the module descriptor (this can be included in the Programme Handbook as appropriate). The handbook could contain the following Project Overview, Roles and Responsibilities, Timeline and Key Milestones, Research Ethics, Assessment and Grading (include grading schemes for different categories of project), Submission Guidelines, Support and Resources, Academic Integrity. Exemplar projects and the staff expertise could also be included as appropriate. The programme development team should rebalance the weighting of marks for the "Artefact/Product Development" and "Evaluation and Analysis" in favour of the evaluation activity.

Report Approval

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

Signed:  Name: Dr Brendan Ryder Validation Panel Chair	Date 18th December 2024