



Programme Validation Report

B.Sc. in Business Information Systems

| Version of Report | Author | Date |
|-------------------|-----------------|-------------------------------|
| 1 | Dr. David Irwin | 10/2/2025 |
| | | Click or tap to enter a date. |
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| Approval | Date |
|--|-------------------------------|
| Programme Proposal approved by Faculty Board | 09/05/2025 |
| Programme Proposal approved by University Programmes Board | Click or tap to enter a date. |
| Programme approved by Faculty Board | Click or tap to enter a date. |
| Programme approved by University Programmes Board | Click or tap to enter a date. |

Section A - Programme Details

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| Title | BSc. (Honours) in Business Information Systems TU 913 | | |
| NFQ Level | 8 | | |
| ECTS Credits | 240 | | |
| Mode of delivery | Part-time | Full-time X | |
| Duration | Part-time: | Full-time: | X |
| Mode of provision | Face-to-Face X | Blended | Online |
| Classification of award | Major Award | | |
| Discipline Programmes Board | Business Technology | | |
| Faculty Board | Faculty of Business | | |
| Schools involved in delivery | School of Business Technology, Retail, and Supply Chain, | | |
| Delivery location | Blanchardstown | | |
| Collaborative Partner (where applicable) | | | |
| Date of Commencement | September 2026 | | |

Section B - Awards

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| Award Title | BSc. (Honours) in Business Information Systems TU 913 | | |
| NFQ Level | 8 | | |
| Award Class | See table below pending adoption by the university | | |
| ECTS Credits | 240 | | |
| Classification of award | Award Classification | GPA | Grade |
| | First Class Honours/Distinction | 4 | >70 |
| | Second Class Honours Grade 1/Merit Grade 1 | 3 | 57-69% |
| | Second Class Honours Grade 2/ Merit Grade 2 | 2.5 | 50-57% |
| | Pass | 1.5 | 40-49% |
| | | | |
| Award (1) Title | Higher Certificate in Business in Business Information Systems 120 Credits. (yr 2). BSc. (Ordinary) in Business Information Systems 180 Credits (yr 3); | | |
| Exit/Embedded | Exit X | Embedded | ✓ |

Section C - Programme Derogations (if required)

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| Derogations from Assessment Regulations/Marks and Standards already approved by University Programmes Board | |
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| Date of University Programmes Board Approval | Click or tap to enter a date. |

Section D Validation Process

Please tick the process that was followed:

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| Validation Panel <input checked="" type="checkbox"/> | AQEC Meeting <input type="checkbox"/> | AQEC Sub-Group <input type="checkbox"/> |
| Date: 10.2 2025 | Date: | Date: |

Panel Members

| Name | Role | Affiliation |
|--------------------|----------------------------------|---------------------------|
| Dr. Maggie Farrell | HoLT Faculty of Business (Chair) | TU Dublin |
| Bairbre Brennan | Internal Member | TU Dublin |
| Barry O'Loughlin | External Member | TUS |
| Dr. Geraldine Grey | Internal Member | TU Dublin |
| Ronan Laffan | External Member | Version 1 |
| Dr. Donal O'Brien | Internal Member | TU Dublin |
| Dr. David Irwin | Academic Affairs | TU Dublin (in attendance) |

Section E - Programme Evaluation

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| Governance & Management | | |
| Is the programme designed in accordance with the University's Strategic Plan, Educational Model and Quality Framework? | Yes ✓ X | No |
| <p>Comment:</p> <p>The programme:</p> <ol style="list-style-type: none"> Validates the learners' ability to tackle decision making in a cross functional specialist business and information systems environment in a coherent, critical, sustainable and logical fashion providing solutions to business problems. (Knowledge - Skill Selectivity) It critiques and formulates the range of necessary skills that allows them to operate at the intersection of the business and IT domains. They will achieve this through creating the ability to conduct critical evaluation in all domains, formulating opinions and solutions, | | |

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| <p>synthesising and integrating complex material from a range of learning sources. (Knowledge Skill-Range)</p> <p>3. Evaluates and validates the relevant thematic areas that intersect the business and information systems domains. (Knowledge – Breadth)</p> <p>4. Identifies the detailed thematic business and technical skill sets required to operate effectively, efficiently, sustainably and professionally in both business and information systems domains. (Knowledge-Kind)</p> <p>5. Acts effectively and efficiently in peer group exercises, presentations, and assessments. Develop their interpersonal skills, and refined their communication abilities, across a variety of formats and contexts, demonstrating an ability to facilitate both individual and group performance in varied contexts. (Competence – Role)</p> <p>6. Embraces self-management in terms of time, planning and behaviour, motivation, self-starting, individual initiative and enterprise, ethical standards and professionalism. They will reflect, be adaptive and collaborative in learning and the ability to cope with a range of learning challenges and scenarios. (Competence - Learning to Learn)</p> <p>7. Acknowledges and empathises with all the stakeholders and communities that operate within the business and information systems domains. They will appraise themselves of their roles and objectives and critique how they impact on the graduate input and activities. (Competence –Insight)</p> <p>8. Synthesizes the learning outcomes from all the thematic modules and learn to integrate and apply their outcomes in the context of SDG influenced business information systems projects. (Competence – Context)</p> | | |
| Will the proposed strategies for programme management and quality assurance ensure that the programme is well managed and continuously enhanced and is in accordance with the University's Quality Framework? | Yes <input checked="" type="checkbox"/> X | No <input type="checkbox"/> |
| <p>Comment:</p> <p>General Assessment Regulations provide for this.</p> | | |

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| Awards Standards | | |
| Are the programme aims and learning outcomes clearly written using appropriate terminology? (See TU Dublin Guidelines) | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> X |
| <p>Comment:</p> <p>The Evaluation Panel commends the genuine attempt to ensure constructive alignment across PLOs, MLOs, and Graduate Attributes. Nonetheless, the Programme Team should ensure that PLOs adopt appropriate language, and demonstrate awareness of industry standards and expectations.</p> <p>Response:</p> <p>The design team accepts the validity of this comment and have revisited the programme PLO's and</p> | | |

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| individual MLO's where appropriate, please refer to our response to Condition 1. | | |
| Are the programme aims and learning outcomes aligned to the proposed level of the award on the NFQ in accordance with applicable Award Standards? | Yes X | No ✓ |
| Comment: | | |
| Will the curricula, teaching, learning and assessment methods enable students to reach the appropriate standard to qualify for the award(s)? | Yes X | No ✓ |
| Comment: | | |
| Was the programme development appropriately informed by internal and external stakeholder input (including industry/practice, professional/regulatory bodies, and community organisations)? | Yes X | No ✓ |
| <p>Comment:</p> <p>Evidence to support this programme was presented in the validation document. However, the consultation with industry took place in Nov. 2023 and the Validation Panel has a concern that changes may have superseded developments in the programme since then that are now not reflected in changed environment. The panel was informed that a subsequent meeting with an external panel in April 2024 and the Panel would recommend that the findings from that meeting are documented. The programme team should ensure that any recommendations from this meeting are reflected in the current programme proposal.</p> <p>Response:</p> <p>We would like to acknowledge the panel's concern regarding the timeline of the industry consultation and the potential for changes since then. We recognise the importance of ensuring the programme reflects the current industry demands and requirements of students and their skillsets. Based on the feedback from the April meeting 2024 the following points were raised and incorporated into the proposal:</p> <ol style="list-style-type: none"> 1. Remove Prototyping from Semester 1 Year 2 and replace it with a module (Principles of Marketing) that covers marketing issues, voice of the customer, SEO, Google Analytics. The issue raised is that student have no exposure to the marketing/product management topics that they would expect to meet during their proposed role. The panel did indicate the need for a digital/marketing technology related module. 2. Move Enterprise Databases to Semester 2 Year 2 and Data Visualisation to Semester 1 Year 3. 3. Design Thinking and Visual Prototyping (Semester 2 Year 2) should have a narrower focus and be retitled "Design Thinking in Technology". 4. A new support module (with no allocated credits) to be introduced as part of the Work Placement semester (Semester 2 Year 3) <p>These recommendations were accepted and embodied into the programme structure.</p> | | |
| Has the programme been benchmarked against similar programmes nationally and internationally? | Yes X | No ✓ |
| <p>Comment:</p> <p>The documentation doesn't include reference to competitor HEI's in Ireland. The panel should redress this.</p> | | |

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| Response: This point has been addressed in response to Condition 5. See below. | | |
| Did the programme development take account of relevant external discipline benchmarks and Professional Statutory and Regulatory Body requirements? | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| Comment: N/A | | |

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| Programme Design | | |
| Is the programme design informed by current development in the discipline and associated subject areas, having taken into consideration current trends, stakeholder feedback and market analysis? | Yes | No X✓ |
| Comment: The programme design needs to allow for emergent and disruptive technologies. Response: The design team accepts this comment and has identified opportunities to incorporate emergent and disruptive technologies into the programme at a much earlier opportunity than originally proposed. Please refer to the design teams response to Condition 3. | | |
| Will there be opportunities for students to input into curriculum design decisions in the future? | Yes X | No <input type="checkbox"/> |
| Comment: This is facilitated through the university's QA/QE processes. Response: The design team recognise the requirement to implement the university's QA/QE processes in full. | | |
| Is there a mechanism to ensure the input of external stakeholders in the ongoing development of the programme? | Yes X | No <input type="checkbox"/> |
| Comment: This is facilitated through the university's QA/QE processes. Response: The design team recognise the requirement to implement the university's QA/QE processes in full. | | |
| Is the programme curriculum well-structured with a logical progression of learning and development across the modules and stages? | Yes | No ✓X |
| Comment: There is a requirement to present more clearly the module choices that reflect industry practise and expectation given that learners may exit the programme with either a level 6 or 7 award. If an elective is offered there has to be an elective choice on offer. Response: The design team acknowledges the panel's feedback. Initially, the programme was structured to include elective modules, anticipating that students would benefit from the Resource Allocation Model | | |

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| <p>(UEM), which allows selection from a range of faculty modules to enhance flexibility and choice. However, as the UEM model has not yet been fully implemented, the design team has reclassified all modules—except those in Year 3, Semester 2—as mandatory. This decision will be revisited once the UEM model is fully operational.</p> | | |
| Are there appropriate opportunities for students to undertake work-based learning, through work placements or work-based projects or assignments? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| <p>Comment:</p> <p>Yes. The panel notes the structured workshop preparation for students in anticipation of placement. More detail needs to be provided regarding alternatives to the placement.</p> <p>Response:</p> <p>The Programme Work Placement Handbook and Assessment details need to be provided. The Work placement handbook and assessment details will be included along with this response document.</p> <p>Alternative to Work Placement</p> <p>The programme team acknowledges that not all students may be able to avail of this opportunity. Consequently, an alternative 30-credit academic programme will be made available for non-participating students. Furthermore, the Programme Board reserves the right to withhold a work placement from any student deemed unsuitable for such an opportunity by the programme board. In such cases, the student will be required to pursue the alternative 30-credit academic programme.</p> <p>Although formal Erasmus agreements have not yet been established, the Programme Board intends to expand opportunities for Erasmus participation in the future.</p> <p>As the number of students required to pursue the alternative programme is expected to be small, and variable from year-to-year, delivering a meaningful programme will be challenging. To address this, it is proposed that there will be a single alternative programme to work placement for TU912 (Business Analytics), TU913 (Business Information Systems) and TU914 (Business Computing). The alternative module to the work placement is the SLAB 3001 Start Up Lab. Taking this approach will allow for the provision of a more meaningful experience for all of the students. It will increase their networks, allow them to engage in new team-based challenges and allow them to experience a different campus. It will also streamline the logistical and resource requirements of delivering the programme.</p> | | |
| If applicable, have the relevant Blended Learning Checklists (i.e., Learning Experience Context & Programme Context) been fully completed and submitted to the Panel? | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| <p>Comment:</p> <p>N/A</p> | | |
| Is the required programme and module information provided in the correct format? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| <p>Comment:</p> <p>The programme team to ensure that any errors in the current documentation e.g., removing older terminology and updating learning media. Also, reading materials need to be modernised and should also include newer-on-line learner support materials. An updated list needs to be provided to library services to ensure students can have access to same.</p> <p>Response:</p> <p>The Design team has been requested to review all modules under their purview and remove older terminology and update learning material as appropriate. All modules have been reviewed and updated appropriately.</p> | | |

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| Learning, Teaching & Assessment | | |
| Is there an effective student-centred teaching and learning strategy that aligns with the University's strategies and Education Model? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| <p>Comment:</p> <p>In the area of 'soft skills' their evolution and development throughout the programme needs to be clearly articulated. This is particularly important in terms of preparation for work placement, and afterwards as graduates in work.</p> <p>Response:</p> <p>The design team fully acknowledges the critical importance of 'soft skills' development for our students' success, both during work placements and in their future careers as graduates. We agree with the panel's observation that the evolution and development of these skills throughout the programme needs to be clearly articulated.</p> <p>Currently, aspects of communication, teamwork, and problem-solving are addressed through the assessment processed embodied in all the modules in the programme structure through the variety of assessment methods used.</p> <p>To strengthen the development of soft skills—referred to by the industry panel as “professional skills”—we propose introducing targeted workshops or activities in areas such as communication (written and verbal), teamwork, leadership, problem-solving, critical thinking, adaptability, time management, and emotional intelligence. These will be delivered prior to the work placement phase (Year 3, Semester 2) as part of students' preparation, complementing the existing opportunities embedded in ongoing modules.</p> <p>In preparation for work placement, specific attention will be paid to developing professional communication, networking skills, and an understanding of workplace etiquette through specific activities like mock interviews, CV workshops and employer presentations.</p> <p>Soft skills are intentionally integrated into the design and assessment of core subject modules. For instance, group projects are structured to evaluate teamwork and communication, while presentations are used to develop and assess confident, effective delivery. These skills are assessed through a range of methods, including direct observation of group dynamics, evaluation of presentation performance, feedback from work placement supervisors, and structured self-reflection exercises. This approach ensures that the development of professional skills is embedded in students' academic work and aligned with learning outcomes and assessment criteria from the commencement of their first year on the programme.</p> | | |
| Does the assessment strategy provide an appropriate mix of assessment types that will enable students to demonstrate that they have met the module and programme learning outcomes? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| <p>Comment:</p> <p>The school to demonstrate this in the Student Handbook. However, in the area of Artificial Intelligence (AI) the Panel notes the inclusion of AI in third and fourth year. The panel notes the inclusion of the <i>viva voce</i> as an adjunct to student assessment(s).</p> <p>The Panel accepts the domain language argument offered in the programme assessment, however, it would encourage the programme team to consider introducing the disruptive potential and business transformation of AI in earlier modules in first and second year. By way of guidance AI should be treated as a core competence and not as a “bad cop” (vis plagiarism).</p> <p>On pp 65-68 the programme team does provide a table of assessments. This needs to explicitly state how soft and hard skills are present and assessed.</p> <p>Response:</p> <p>The design team acknowledges the panel's feedback and has reviewed several modules in the first two years of the programme to incorporate Generative AI (GenAI) into both the module learning outcomes and indicative syllabi. The team also concurs that GenAI should be considered a core</p> | | |

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| competency, recognising its potential to enhance learning and teaching for both students and staff, while remaining mindful of the challenges it presents. | | |
| Do the learning outcomes and assessment strategy ensure that academic integrity can be maintained and attempted breaches of academic integrity are minimised/easily detected? | Yes <input checked="" type="checkbox"/> X | No <input type="checkbox"/> |
| <p>Comment:</p> <p>All students who gain access to the university VLE have to agree to undertake Epigeum training on Academic Integrity. Learnings derived from academic integrity and artificial intelligence need to be reinforced throughout the programme and not confined to one module in isolation.</p> <p>Response:</p> <p>The Design team concurs with this comment and have incorporated GenAI ethics and uses into modules both in 1st and 2nd year of the program.</p> | | |
| Is there a comprehensive mapping of assessment methods and module learning outcomes and between module learning outcomes and programme learning outcomes? | Yes <input checked="" type="checkbox"/> ✓ | No <input checked="" type="checkbox"/> X |
| <p>Comment:</p> <p>The School to review this so as to ensure that this requirement is addressed.</p> <p>The programme team should consider greater use of assessments that encompass an alignment of IT with business strategy given the emphasis of the programme to equip a hybrid IT/Business graduate to enhance employment opportunities.</p> <p>Response:</p> <p>The design team fully agree with the panel's comment regarding the importance of assessments that align IT with business strategy. Given the programme's emphasis on equipping graduates with a hybrid IT/Business skillset to enhance their employment opportunities, the recognise the critical need to assess their ability to integrate these two domains effectively.</p> <p>In the delivery of the programme modules, the lecturing team will incorporate case studies that present real-world business challenges requiring students to propose IT-enabled strategic solutions, justifying their choices based on business value and feasibility.</p> <p>In addition, projects will be designed where students are tasked with developing a business strategy for a given scenario and must explicitly outline the role of IT in achieving the strategic objectives, including technology selection, implementation plans, and resource considerations.</p> <p>The potential use of business simulations with integrated IT decision-making elements will be explored in the Business Simulation module (Year 3 Semester 1) to allow students to experience the dynamic interplay between IT choices and business outcomes.</p> | | |
| Are there opportunities in the module to provide students with timely and constructive feedback on their learning and development? | Yes <input checked="" type="checkbox"/> X | No <input type="checkbox"/> |
| <p>Comment:</p> <p>This information is to be included in the Student Handbook.</p> <p>Response:</p> <p>The design team concur with this view and will implement it in the Student Handbook</p> | | |
| Do the teaching and assessment methods consider the diversity of the student cohort? | Yes <input checked="" type="checkbox"/> X | No <input checked="" type="checkbox"/> ✓ |
| <p>Response:</p> <p>Academic staff on the programme utilise the Brightspace Virtual Learning Environment (VLE) as the primary platform to support teaching and assessment. Brightspace facilitates the implementation of</p> | | |

inclusive practices, such as the advance provision of lecture notes, accessible learning materials, explanatory videos, and diverse case studies and assessment examples. It also supports flexible assessment formats and scheduling, and accommodates individual student needs through personalised adjustments where required.

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| Student Supports & Learning Environment | | |
| Are there sufficient and appropriate resources (e.g. human, financial and physical) to support the proposed programme aims and objectives, to deliver the programme as specified? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| <p>Comment:</p> <p>In the delivery of the programme, are all existing staff fully engaged or capable of being deployed to the programme? If so, the school need to manage the extra load where no additional resources are available.</p> <p>Response:</p> <p>Currently, all existing staff are fully engaged. To manage the transition to the new version of the programme, the school will adopt a phased transition approach from the current version to the proposed version. It is envisaged that there will be no additional lecturing hours required and as such there will be no net cost to the programme from a HR perspective.</p> | | |
| Are there sufficient staff that are appropriately qualified and capable to support the programme delivery, from both context and pedagogy perspectives? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| <p>Comment:</p> <p>The School should state how many modules will be shared with other programmes within the Faculty. The School to ensure that there is a formal arrangement with other Schools to supply appropriately qualified staff to deliver the programme.</p> <p>Response:</p> <p>As designed, the programme will share 14 modules (95 ECTS Credits). These modules are shared in the current version of the programme. A full listing of the shared modules can be found in the annex to this document. The full resources of the School of Business Technology, retail and Supply Chain are available to meet the skills requirements of the programme. This amounts to approximately 30 staff.</p> | | |
| Are there appropriate arrangements in place to support the student experience and to monitor student performance? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| <p>Comment:</p> <p>This is facilitated through the university's QA/QE processes.</p> <p>Response:</p> <p>The Design Team acknowledges the alignment with current university QA/QE processes.</p> | | |
| Are the access, transfer and progression arrangements clearly defined and appropriate, and aligned to TU Dublin policy/strategy in this regard? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| <p>Comment:</p> <p>Students presenting with an NQI Level 5 or 6 award may be eligible for entry to either year 1 or 2 of the proposed TU913 restructured degree based on the level of alignment between the exit award and</p> | | |

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| <p>the degree structure. The degree of alignment will be determined by the Discipline Programme Board in accordance with standard university policy and procedures.</p> <p>Response: The design team recognise the issue of advanced entry onto the programme and will advise the Head of Discipline of any special issues and / or requirements as appropriate.</p> | | |
| Does the student support and learning environment cater for equality, diversity and inclusivity of students? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| <p>Comment: This information is to be provided in the Student Handbook.</p> <p>Response: The design team recognise the need to cater for student equality, diversity and inclusivity and will include all required information, in compliance with university requirements, in the student handbook for the programme.</p> | | |
| Is the relevant programme information clearly communicated to the students to ensure they are informed, guided and cared for? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| <p>Comment: This information is provided in the Student Handbook.</p> <p>Response: The programme coordinator will ensure that all relevant information will be clearly included in the Student Handbook for all years and additionally will be covered during the induction programme for first year students.</p> | | |
| Has the Checklist for First Year Student Success (where applicable) been fully completed and submitted to the Panel? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| <p>Comment. There should be an appropriate induction process for all students entering the programme. In particular, there should be sufficient advice and guidance for learners in choosing from the array of specialisms and other modules available on the programme.</p> <p>Response: There is an Induction Programme delivered for all First-Year students entering the programme. This programme is delivered by the Program Coordinator and First Year Tutor and covers all relevant and important information appropriate to new entrants. Additionally, the induction is followed up by the First Year Tutor on a regular basis during the first semester. This is managed by ensuring that the First Year Tutor is a member of the First-Year lecturing team. Advanced entry student to the program are dealt with on a need's basis by the level Year Tutor.</p> <p>In particular, there should be sufficient advice and guidance for learners in choosing from the array of specialisms and other modules available on the programme.</p> <p>This is no longer an issue as the programme will have a unique CAO code, so students will intentionally commit to the programme. As the programme is structured, student choice will be limited to the elective modules under the UEM, which again is not significant.</p> | | |

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| Collaborative Provision (if applicable) | | |
| Are the roles and responsibilities of each partner clearly defined? | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |
| Comment: N/A | | |

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| In the case of Joint or Multiple Awards, has due diligence on capacity of partner institution meeting the QA-QE requirements for the programme been undertaken? | Yes <input type="checkbox"/> | No <input type="checkbox"/> |
| Comment: TU Dublin is the awarding body for this programme. | | |

Section F - Overall Recommendation

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| 1. | Recommend approval of programme as submitted, without amendment | <input type="checkbox"/> |
| 2. | Recommend approval of programme, subject to minor amendments/editorial changes to be completed as soon as possible and with recommendations for consideration. Note: recommendations are attached where it is considered that the programme would benefit from changes, or from a review of certain aspects of the programme over a period, with changes made if required. While recommendations are advisory in nature, there is an expectation that all recommendations are responded to appropriately and acted upon as appropriate. | <input type="checkbox"/> |
| 3. | Recommend approval of programme subject to the fulfilment of conditions. Recommendations for consideration may also be attached. Note: conditions are attached where it is agreed that changes must be made to the programme / programme documentation prior to the commencement of the programme. Conditions must be set where issues are identified that relate directly to academic standards or to University regulations or procedures. It should be clear what is required to meet the conditions. A new programme cannot go forward to Faculty Board for consideration/approval unless a response to the Validation Report is submitted with revised programme documentation and the Academic Quality Enhancement Committee is satisfied that all conditions are met. | X |
| 4. | Do not recommend approval of programme. | <input type="checkbox"/> |

| Areas for commendation | |
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| 1. | The Evaluation Panel commends the enthusiasm of staff for this programme. |
| 2. | The Evaluation Panel was impressed with the student handbook. |
| 3. | The Evaluation Panel was impressed with the historic data as a precursor for change (incl. SWOT Analysis, data analysis). |
| 4. | |

| Recommendations | |
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| 1. | A hybrid graduate must possess a solid foundation in business and technology, so as to bridge the gap between business and IT, but also be comfortable in considering the impacts of disruptive technologies in a fast-changing environment. This should be more evident in the programme documentation. |

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| | <p>Response:</p> <p>The TU913 BSc Business Information Systems programme is explicitly designed to integrate business fundamentals with IT fundamentals, preparing graduates to operate effectively at the intersection of the Business and Information domains. The gap between the business domain and the IT domain gapped through three separate approaches. These are curriculum integration, skills development and placing a focus on the strategic role played by Business Information Systems.</p> <p>Curriculum Integration.</p> <p>The programme is a hybrid programme. Its focus is to address both the business domain at a strategic level and the IT domain that underpins modern business practices and strategies, aiming to produce graduates with the balance of theoretical knowledge and practical skills needed to match IT solutions to business needs and requirements. The revised Programme Learning Outcomes continue this aim, stating that graduates will validate their ability to tackle decision-making in a cross-functional specialist business and information systems environment, operate at the intersection of the business and IT domains, and integrate business knowledge and skills with relevant disciplinary depth. Graduates are expected to synthesize learning from business and information technology modules and apply it in the context of a capstone business information systems projects delivered in the final year of the programme.</p> <p>The curriculum structure includes a blend of modules covering both business and IT areas across all 4 years of the programme. This includes business-focused modules like Accounting (year 1), Leading and Exploring Modern Enterprises (year1), Marketing (Year 2) , Financial Management (year 2), Business Modelling and simulation (Year 3), Work Placement (Year 3), Business Strategy (Year 4), and Emerging Technology and organisational Change (Year 4) alongside IT-focused modules such as Programming(Years 1,2 and 3), Databases, Web Development, and Systems Analysis/Design. Importantly, many modules specifically combine these fields, such as Business Information Systems Operations, Digital Product Management, Databases Management and Design, Object Oriented Analysis and Design, Advanced Business Intelligence, and Strategic Management of Information Systems. The proposed new structure continues this mixed approach and adds modules reflecting current trends at the intersection of business and technology, such as Digital Innovation for Sustainability, Data Visualisation and Storytelling, Large Language Models: Strategies and Practices and Governance & Ethics in IS and AI.</p> <p>In alignment with university policy, the programme conceptualises its graduates as "T-shaped students". The vertical axis of the "T" represents deep expertise in core Business Information Systems areas, encompassing both technical and strategic dimensions. The horizontal axis signifies the breadth of complementary knowledge, including foundational business principles, technological competencies, and essential soft/professional skillsets. This framework explicitly illustrates the programme's goal of integrating specialised IT knowledge with broader business understanding and practical skills.</p> <p>Feedback from employers and external stakeholders strongly emphasises the need for graduates who can bridge the gap between the IT and business domains. They highlighted that graduates require a "hybrid skill set" combining ICT skills, business acumen, communication/leadership skills, and professional skills (soft skills). Industry sees BIS graduates as ideally positioned to act as "educated intermediaries" who can translate technology into tangible business value and understand both the human and system aspects of business processes. The redesign of the programme incorporates suggestions from graduates and industry stakeholders to ensure alignment with these needs.</p> <p>The programme design includes strategies to integrate academic learning with real-world application. The final-year capstone IT Project (Semester 1 & 2, 20 Credits) requires students to choose a business area and develop an IT solution to an identified requirement or problem, drawing upon a range of business and IT skills and knowledge gained throughout the course. The proposed introduction of a work placement module (and it's alternative – Start Up Lab) in Year 3 (Semester 2) is a significant enhancement aimed at providing students with exposure to real-world uses of their developing skillsets. Site visits to technology companies and engagements with guest lecturers from the IT sector will provide valuable insights and opportunities to apply theoretical knowledge in practical settings.</p> |
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| <p>The redesigned programme aligns with the TU Dublin Educational Model, which emphasizes integrated and engaged curricula co-created with students, industry, and other stakeholders. The curriculum focuses on the application of knowledge, scholarship, and experiential learning. The programme also maps its modules to the University's graduate attributes, which include being digitally capable, sustainability-focused global citizens, and collaborative, real-world problem solvers. Achieving these attributes necessitates the application of integrated business and IT knowledge to address real world business challenges.</p> <p>Skills Development.</p> <p>The focus of the programme is to produce graduates with the balance of theoretical knowledge and practical skills needed to match information technology solutions to business needs in the modern business environment. The revised Programme Learning Outcomes explicitly state that graduates will validate their ability to tackle decision-making in a cross-functional specialist business and information systems environment and operate effectively at the intersection of the business and IT domains. They are expected to integrate business knowledge and skills with relevant disciplinary depth</p> <p>The programme's curriculum is deliberately structured to include modules from both business and IT disciplines, but critically, many modules specifically combine concepts from both fields. This structure is designed to ensure students gain competency across both domains. Examples of modules that bridge this gap include:</p> <ul style="list-style-type: none"> • Business Information Systems Operations • Database Management and Design and Enterprise Databases • Object Oriented Analysis & Design • Advanced Business Intelligence • Information Systems Strategy and Business Strategy • Digital Product Management • Business Modelling and Simulation • Digital Innovation for Sustainability • Governance & Ethics in IS and AI • Large Language Models: Strategies and Practices in Business • Emerging Technology & Organisation Change <p>This breadth and integration of modules ensures students don't just learn business or IT, but how they interrelate and how technology can be applied to solve business problems.</p> <p>Stakeholders and the programme document itself emphasize the role of BIS graduates as "educated intermediaries" who can bridge the gap between technical teams (developers) and business stakeholders (customers). The programme aims to equip graduates with the skills to:</p> <ul style="list-style-type: none"> • Understand business needs and "pain points" • Align technology solutions with specific business needs • Translate complex technical concepts into practical business solutions • Translate business problems into technical solutions • Communicate effectively with various stakeholders • Understand both human and system aspects of processes • Identify and articulate problems between end users and solution providers <p>The programme incorporates two key elements to allow students to demonstrate and develop integrated skills in a practical context, these are:</p> <ol style="list-style-type: none"> 1. The final-year IT Project, which requires students to choose a business area, identify a problem or requirement, and develop an IT solution, drawing on knowledge from various modules. This is a key demonstrator of bridging business problem identification with a technical solution design and implementation. 2. The introduction of a work placement in Year 3 (Semester 2) is a significant enhancement (in addition to aligning with university policy) specifically aimed at providing students with real-world exposure to the use of their developing skillsets in industry. <p>Understanding the strategic role of Information Technology in the Business Domain.</p> |
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| <p>The programme was designed as a "hybrid programme" specifically to address "traditional business concepts at a strategic business level and the information technology concepts which underpin all modern business strategies". The central goal is to produce graduates capable of enabling organisations to "match information technology solutions to business needs in the modern business environment". The revised Programme Learning Outcomes reinforce this, stating that graduates will validate their ability to tackle decision-making in a "cross-functional specialist business and information systems environment" and "operate at the intersection of the business and IT domains". They are expected to "integrate business knowledge and skills with relevant disciplinary depth".</p> <p>The curriculum structure and content are explicitly designed to blend business and IT subjects, with specific modules focusing on their strategic interrelationship. Examples of modules that bridge this gap and contribute to a strategic understanding include:</p> <ul style="list-style-type: none"> • Business Information Systems Operations • Business Strategy • Information Systems Strategy • Advanced Business Intelligence • Digital Product Management • Business Modelling and Simulation • Digital Innovation for Sustainability • Governance & Ethics in IS and AI • Large Language Models: Strategies and Practices in Business • Leadership and Emotional Intelligence • Emerging Technology & Organisation Change <p>Many of these modules, such as Information Systems Strategy, use extensive case studies to present real business challenges and place students in the role of decision-makers, directly linking strategic business thinking with IT application.</p> <p>The programme aims to produce "T-shaped students", where the vertical axis represents deep expertise in BIS (including strategic dimensions), and the horizontal axis signifies broad complementary knowledge, including foundational business principles. This framework illustrates the intention to equip graduates with specialised IT knowledge grounded in a wider strategic business context. The required "hybrid skill set" includes "Business acumen: Understanding of business processes, strategic direction and planning and business objectives" alongside ICT, communication, and professional skills.</p> <p>Stakeholder feedback underscores the need for graduates who can bridge the IT and business domains. Industry professionals view BIS graduates as "educated intermediaries" who can translate technology into "tangible value" for the business. They highlight that graduates need to understand "how systems interact within organizational contexts", grasp the "intricacies of business processes", and understand how to "leverage a mix of existing and emerging technologies... to create value". The redesign incorporates this feedback to strengthen the alignment with industry needs for individuals who can operate at this strategic intersection.</p> <p>Experiential and applied learning components are crucial for demonstrating this strategic understanding in practice. The final-year IT Project requires students to "research a business area of their choice, identify potential IT system development opportunities pertinent to the selected business area and to develop an IT system which reflects the research conducted". This project mandates drawing on "diagnostic, technical, design, planning and modelling skills" to solve business problems with IT solutions, demonstrating the practical application of strategic thinking. The planned work placement in Year 3 also aims to provide real-world exposure to how businesses use IT, allowing students to observe business issues and apply academic knowledge in operational contexts. The use of guest lecturers also provide insights into the strategic application of technology in practice.</p> <p>By embedding these elements throughout the curriculum, learning outcomes, and practical experiences, the programme demonstrates a clear commitment to developing graduates who understand and can effectively implement the strategic role of Business Information Systems within the broader business domain.</p> <p>The BSc in Business Information Systems (BIS) programme at TU Dublin is specifically designed to produce the type of "hybrid" graduate. The opening paragraph of the submission document has been</p> |
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| | <p>amended to explicitly highlight how the programme addresses the need for professionals who bridge the gap between business and IT and are prepared for a fast-changing digital landscape.</p> <p>The document highlights the following points:</p> <ul style="list-style-type: none"> • Developing the Hybrid Professional: The programme description defines the BSc in BIS as a comprehensive programme designed to develop the Information Systems professional bridging the intersection of business and information systems. Graduates are explicitly referred to as a 'hybrid' professional, possessing both technical and business skills. A key aspect of the programme is providing graduates with contextualisation skills, enabling them to work in a hybrid role, translating business needs into the optimal technical solution that leverages the potential of artificial intelligence to solve business challenges. • Solid Foundation in Business and Technology: The curriculum is structured to blend core business principles with specialised IT knowledge. Mandatory modules cover essential areas such as accounting, business statistics, and programming. The programme aims to equip graduates with a broad range of skills, including technical proficiency, business process understanding, leadership, and expertise in areas such as data analysis, project management, and strategic thinking. Graduates are expected to combine a business understanding with a strong technical knowledge. • Addressing Disruptive Technologies and Fast-Changing Environment: The programme is designed to equip graduates with the multifaceted professional skill set necessary to excel in a rapidly evolving digital landscape. It acknowledges that the jobs graduates will end up in may not even exist as they read about the programme. The curriculum incorporates emerging topics such as digital transformation, agile methodologies, and large language models to ensure relevance to current industry trends. The programme highlights the need for specific expertise in artificial intelligence (AI), noting that AI skills are in short supply and highly sought after by industry. The document states that the programme provides sought-after skills like programming skills, Big Data Management skills, Machine Learning skills, and Cloud Computing skills which are needed for the adoption of AI. Graduates are prepared to be adaptable, lifelong learners equipped to thrive in a digitally connected world. The programme is aligned with the strategic objectives of the university to produce graduates who are skilled, capable, and industry ready. It has been designed based on feedback from industry experts and graduates, reflecting the need for graduates who can help companies continuously improve business processes and stay compliant with evolving regulations and sustainability goals. <p>The above text has been added to the programme validation document at page 53.</p> |
| 2. | <p>The PLO skill requirements/themes should be linked to the assessment methods. This might best be represented in tabular format week by week and semester by semester in percentage or ECT terms. Also, there should be an avoidance of over assessment as set out in the assessment schedule.</p> <p>Response:</p> <p>The following PLO skill requirements and assessment methods/timings have been added to page 70 of the programme proposal document.</p> |

Year 1 Semester 1

| Assessment Schedule | | | | | | | | Programme Learning Outcomes | | | | | | | |
|---------------------|--------------|-----------------------------|---------------------------------------|-------------------------------|--|----------------------------|------------|-----------------------------|---------------|-----------------------------------|--------------------------|----------------------|----------------|---------------------------------------|--------------------------|
| | Module Title | Introduction to Programming | Introduction to Requirements Analysis | Business Maths & Statistics 1 | Skills for Success in Higher Education | Leading Modern Enterprises | Accounting | Hybrid Skill Set | Data Literacy | Technical and professional skills | Adaptability and Agility | Practical Experience | Cloud Literacy | Problem-Solving and Critical Thinking | Awareness and Discipline |
| Week 1 | | | | | | | | | | | | | | | |
| Week 2 | | | | | | | | | | | | | | | |
| Week 3 | | 10% | | | | | | X | X | X | X | X | | X | X |
| Week 4 | | | | | | | | | | | | | | | |
| Week 5 | | | 15% | | | | | X | | X | X | X | | X | X |
| Week 6 | | | | | 30% | | | X | | X | X | | | X | X |
| Week 7 | | | | | | 30% | | X | | X | X | | | X | X |
| Week 8 | | | | | | | | | | | | | | | |
| Week 9 | | | | | | | | | | | | | | | |
| Week 10 | | | 35% | | | | | X | | X | X | X | | X | X |
| Week 11 | | | | 20% | | 30% | | X | X | X | X | | | X | X |
| Week 12 | | 25% | | | 40%* | | | X | X | X | X | X | | X | X |
| Week 13 | | | | | | | | | | | | | | | |
| Ongoing | | 15% | | | 30% | | 30% | X | X | X | X | X | | X | X |
| Exams | | 50% | 50% | 80% | | 40% | 70% | X | X | X | X | X | | X | X |
| Total | | 100% | 100% | 100% | 100% | 100% | 100% | | | | | | | | |

Module percentage assessments indicated by an asterisk (*) denote evaluations derived from the aggregation of materials compiled over the course of the academic semester.

Year 1 Semester 2

| Assessment Schedule | | | | | | | Programme Learning Outcomes | | | | | | | |
|---------------------|----------------------------|-----------------------------|--|-------------------------------|------------------------------|------------|-----------------------------|---------------|-----------------------------------|--------------------------|----------------------|----------------|---------------------------------------|--------------------------|
| Module Title | Introduction to Web Design | Object Oriented Programming | Introduction to Business Information Systems | Business Maths & Statistics 2 | Exploring Modern Enterprises | Accounting | Hybrid Skill Set | Data Literacy | Technical and professional skills | Adaptability and Agility | Practical Experience | Cloud Literacy | Problem-Solving and Critical Thinking | Awareness and Discipline |
| Week 1 | | | | | | | | | | | | | | |
| Week 2 | | | | | | | | | | | | | | |
| Week 3 | | | | | | | | | | | | | | |
| Week 4 | | | | | | | | | | | | | | |
| Week 5 | | | | | | | | | | | | | | |
| Week 6 | | | | | | | | | | | | | | |
| Week 7 | | | | | 30% | | X | | | X | | | | X |
| Week 8 | | | | | | | | | | | | | | |
| Week 9 | | | 30% | | | | X | | | | | X | | X |
| Week 10 | | | | | | | | | | | | | | |
| Week 11 | | | | 20% | | | X | | | | | X | X | X |
| Week 12 | 40%* | 50%* | 40%* | | 30% | | X | X | X | X | X | X | X | X |
| Week 13 | | | | | | | | | | | | | | |
| Ongoing | 60% | | 30% | | | 30% | X | X | X | | X | X | X | X |
| Exams | | 50% | | 80% | 40% | 70% | X | X | X | X | | | X | X |
| Total | 100% | 100% | 100% | 100% | 100% | 100% | | | | | | | | |

Module percentage assessments indicated by an asterisk (*) denote evaluations derived from the aggregation of materials compiled over the course of the academic semester.

Year 2 Semester 1

| Assessment Schedule | | | | | | |
|---------------------|-----------|-----------------------------|---|-------------------------|--------------------------------|--------------------|
| Module Title | UX Design | Server-Side Web Programming | Business Information Systems Operations | Principles of Marketing | Database Management and Design | Project Management |
| Week 1 | | | | | | |
| Week 2 | | | | | | |
| Week 3 | | | | | | |
| Week 4 | | | | | | |
| Week 5 | | | | | | |
| Week 6 | | | | | | |
| Week 7 | | 15% | | | 15% | 40% |
| Week 8 | | | | | | |
| Week 9 | | | | | | |
| Week 10 | | 15% | | | | |
| Week 11 | | | 50% | | | |
| Week 12 | | | | 40% | | |
| Week 13 | | | | | | |
| Ongoing | 100%* | 25% | | | 15% | |
| Exams | | 45% | 50% | 60% | 70% | 60% |
| Total | 100% | 100% | 100% | 100% | 100% | 100% |

| Programme Learning Outcomes | | | | | | | |
|-----------------------------|---------------|-----------------------------------|--------------------------|----------------------|----------------|---------------------------------------|--------------------------|
| Hybrid Skill Set | Data Literacy | Technical and professional skills | Adaptability and Agility | Practical Experience | Cloud Literacy | Problem-Solving and Critical Thinking | Awareness and Discipline |
| | | | | | | | |
| | | | | | | | |
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| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| X | X | X | X | X | X | X | X |
| | | | | | | | |
| | | | | | | | |
| X | X | X | X | X | X | X | X |
| | X | X | | X | X | X | X |
| X | | X | X | | | X | X |
| | | | | | | | |
| X | X | X | X | X | X | X | X |
| X | X | X | X | X | X | X | X |
| | | | | | | | |

Module percentage assessments indicated by an asterisk (*) denote evaluations derived from the aggregation of materials compiled over the course of the academic semester.

Year 2 Semester 2

| Assessment Schedule | | | | | | |
|---------------------|---------|-----------------------------------|-------------------------------|----------------------|----------------------------|---------------------------|
| Module Title | Finance | Business Modelling and Simulation | Design Thinking in Technology | Enterprise Databases | Digital Product Management | Web Framework Programming |
| Week 1 | | | | | | |
| Week 2 | | | | | | |
| Week 3 | | 20% | | | | |
| Week 4 | | | | | | |
| Week 5 | | | | | | |
| Week 6 | 15% | | | 15% | | 15% |
| Week 7 | | 20% | | | | |
| Week 8 | | | | 10% | | |
| Week 9 | | | 50% | | | |
| Week 10 | | 30% | | | | 15% |
| Week 11 | 15% | | | | 40% | |
| Week 12 | | 30% | | 10% | | |
| Week 13 | | | | | | |
| Ongoing | | | | 15% | 20% | 25% |
| Exams | 70% | | 50% | 50% | 40% | 15% |
| Total | 100% | 100% | 100% | 100% | 100% | 70% |

| Programme Learning Outcomes | | | | | | | |
|-----------------------------|---------------|-----------------------------------|--------------------------|----------------------|----------------|---------------------------------------|--------------------------|
| Hybrid Skill Set | Data Literacy | Technical and professional skills | Adaptability and Agility | Practical Experience | Cloud Literacy | Problem-Solving and Critical Thinking | Awareness and Discipline |
| | | | | | | | |
| | | | | | | | |
| X | X | X | X | X | | X | X |
| | | | | | | | |
| | | | | | | | |
| X | X | X | X | X | X | X | X |
| X | X | X | X | X | | X | X |
| | X | X | X | X | X | | X |
| | | X | X | X | | X | X |
| X | X | X | X | X | X | X | X |
| X | | X | X | | | X | X |
| | X | X | X | X | X | | X |
| | | | | | | | |
| | X | X | X | X | X | X | X |
| X | X | X | X | X | | X | X |
| | | | | | | | |

Module percentage assessments indicated by an asterisk (*) denote evaluations derived from the aggregation of materials compiled over the course of the academic semester.

Year 3 Semester 1

| Assessment Schedule | | | | | | |
|---------------------|---------------------------------|---------------------------------------|-----------------------------------|-------------------------------------|----------------------------|---|
| Module Title | Mobile Applications Development | Introduction to Business Intelligence | Object Oriented Analysis & Design | Data Visualisation and Storytelling | Software Quality Assurance | Agile Project Management for Developers |
| Week 1 | | | | | | |
| Week 2 | | | | | | |
| Week 3 | | | | | | |
| Week 4 | | | 20% | | | |
| Week 5 | | | | | | |
| Week 6 | | | | | | |
| Week 7 | 15% | | | | 30% | |
| Week 8 | | | | | | |
| Week 9 | | | 20% | | | |
| Week 10 | | | | | | |
| Week 11 | | | | | | |
| Week 12 | 20% | | 50%* | | | |
| Week 13 | | | | | | |
| Ongoing | 15% | 40% | 10% | 50% | | 50% |
| Exams | 50% | 60% | | 50% | 70% | 50% |
| Total | 100% | 100% | 100% | 100% | 100% | 100% |

| Programme Learning Outcomes | | | | | | | |
|-----------------------------|---------------|-----------------------------------|--------------------------|----------------------|----------------|---------------------------------------|--------------------------|
| Hybrid Skill Set | Data Literacy | Technical and professional skills | Adaptability and Agility | Practical Experience | Cloud Literacy | Problem-Solving and Critical Thinking | Awareness and Discipline |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| X | X | X | X | X | | X | X |
| | | | | | | | |
| | | | | | | | |
| | X | X | X | X | X | X | X |
| | | | | | | | |
| X | X | X | X | X | | X | X |
| | | | | | | | |
| | | | | | | | |
| X | X | X | X | X | X | X | X |
| | | | | | | | |
| X | X | X | X | X | X | X | X |
| X | X | X | X | X | X | X | X |
| | | | | | | | |

Module percentage assessments indicated by an asterisk (*) denote evaluations derived from the aggregation of materials compiled over the course of the academic semester.

Year 3 Semester 2

| Assessment Schedule | | |
|---------------------|----------------|----------------|
| Module Title | Work Placement | Startup Studio |
| Week 1 | | |
| Week 2 | | |
| Week 3 | | 20% |
| Week 4 | | |
| Week 5 | | |
| Week 6 | | 20% |
| Week 7 | | |
| Week 8 | | 20% |
| Week 9 | | |
| Week 10 | | |
| Week 11 | | |
| Week 12 | | 40% |
| Week 13 | | |
| Ongoing | 100% | |
| Exams | | |
| Total | 100% | 100% |

| Programme Learning Outcomes | | | | | | | |
|-----------------------------|---------------|-----------------------------------|--------------------------|----------------------|----------------|---------------------------------------|--------------------------|
| Hybrid Skill Set | Data Literacy | Technical and professional skills | Adaptability and Agility | Practical Experience | Cloud Literacy | Problem-Solving and Critical Thinking | Awareness and Discipline |
| | | | | | | | |
| | | | | | | | |
| X | | X | X | | | X | X |
| | | | | | | | |
| | | | | | | | |
| X | | X | X | X | | X | X |
| | | | | | | | |
| X | X | X | X | X | X | X | X |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| X | X | X | X | X | X | X | X |
| | | | | | | | |
| X | X | X | X | X | X | X | X |
| | | | | | | | |
| | | | | | | | |

Module percentage assessments indicated by an asterisk (*) denote evaluations derived from the aggregation of materials compiled over the course of the academic semester.

Year 4 Semester 1

| Assessment Schedule | | | | | |
|---------------------|-------------------|--------------------------------|------------------------------------|----------------------------------|---------------------------------------|
| Module Title | Business Strategy | Advanced Business Intelligence | IT Project 1 - Analysis and Design | Governance & Ethics in IS and AI | Digital Innovation for Sustainability |
| Week 1 | | | | | |
| Week 2 | | | | | |
| Week 3 | | | | | |
| Week 4 | | 10% | | | |
| Week 5 | | | | 30% | |
| Week 6 | | | | | |
| Week 7 | | 10% | | | |
| Week 8 | | | | | 30% |
| Week 9 | 20% | 10% | | | |
| Week 10 | | | | | |
| Week 11 | | 10% | | 50% | |
| Week 12 | | | 60%* | 20% | 70%* |
| Week 13 | | | | | |
| Ongoing | | 10% | 40% | | |
| Exams | 80% | 50% | | | |
| Total | 100% | 100% | 100% | 100% | 100% |

| Programme Learning Outcomes | | | | | | | |
|-----------------------------|---------------|-----------------------------------|--------------------------|----------------------|----------------|---------------------------------------|--------------------------|
| Hybrid Skill Set | Data Literacy | Technical and professional skills | Adaptability and Agility | Practical Experience | Cloud Literacy | Problem-Solving and Critical Thinking | Awareness and Discipline |
| | | | | | | | |
| X | X | X | X | X | X | X | X |
| | | | | | | | |
| X | X | X | X | X | X | X | X |
| X | | X | | | | | X |
| | | | | | | | |
| X | X | X | X | X | X | X | X |
| X | X | X | | | | | X |
| X | X | X | X | X | X | X | X |
| | | | | | | | |
| X | X | X | X | X | X | X | X |
| X | X | X | X | X | X | X | X |
| | | | | | | | |
| X | X | X | X | X | X | X | X |
| X | | X | X | | | X | X |
| | | | | | | | |

Module percentage assessments indicated by an asterisk (*) denote evaluations derived from the aggregation of materials compiled over the course of the academic semester.

Year 4 Semester 2

| Assessment Schedule | | | | | |
|---------------------|------------------------------|-------------------------------|-------------------------------------|---|---|
| Module Title | Information Systems Strategy | IT Project 2 - Implementation | Leadership & Emotional Intelligence | Large Language Models: Strategies and Practices in Business | Emerging Technology & Organisation Change |
| Week 1 | | | | | |
| Week 2 | | 6% | | | |
| Week 3 | | | | | |
| Week 4 | | 6% | | | |
| Week 5 | | | | | |
| Week 6 | 20% | 6% | | | 40% |
| Week 7 | | | | | |
| Week 8 | | 6% | | | |
| Week 9 | | | 10% | | |
| Week 10 | | 6% | | 70%* | |
| Week 11 | 20% | | | 20% | |
| Week 12 | | 60%* | | 10% | 60%* |
| Week 13 | | | | | |
| Ongoing | | 10% | 40% | | |
| Exams | 60% | | 50% | | |
| Total | 100% | 100% | 100% | 100% | 100% |

| Programme Learning Outcomes | | | | | | | |
|-----------------------------|---------------|-----------------------------------|--------------------------|----------------------|----------------|---------------------------------------|--------------------------|
| Hybrid Skill Set | Data Literacy | Technical and professional skills | Adaptability and Agility | Practical Experience | Cloud Literacy | Problem-Solving and Critical Thinking | Awareness and Discipline |
| | | | | | | | |
| X | X | X | X | X | X | X | X |
| | | | | | | | |
| X | X | X | X | X | X | X | X |
| | | | | | | | |
| X | X | X | X | X | X | X | X |
| | | | | | | | |
| X | X | X | X | X | X | X | X |
| X | | X | X | | | X | X |
| X | X | X | X | X | X | X | X |
| X | X | X | X | X | | X | X |
| X | X | X | X | X | X | X | X |
| | | | | | | | |
| X | X | X | X | X | X | X | X |
| | | | | | | | |
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Module percentage assessments indicated by an asterisk (*) denote evaluations derived from the aggregation of materials compiled over the course of the academic semester.

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| Recommendations (Cont) | |
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| 3. | <p>The programme team to include, within an academic context, how learning teaching and assessment strategies can be positively changed /influenced by the developments in Artificial Intelligence.</p> |
| | <p>Response:</p> <p>Recommendation 3 has resulted in a new section added to the document titled: Teaching, Learning and Assessment and the impact of GenAI on page 84 of version 3 of the submission.</p> <p>The university's Academic Quality Framework (5 December 2022) does not directly address the use of GenAI in dealing with Academic Integrity however it does directly address the area of assessment integrity "...the principles of honest and trustworthy assessment, are upheld so that the learner undergoes a fair assessment of their learning to determine whether programme / module learning outcomes have been achieved...." And articulates the behaviours that breach academic integrity in section 3.4. The following document has been written with the intention of guiding academic staff on the BSc Business Information Systems degree programme with respect to the use of Generative Artificial Intelligence (GenAI) in Teaching, learning and Assessment activities on the programme.</p> <p>The use of generative AI (GenAI) is significantly impacting third level education in the areas of learning, teaching, and assessment, presenting both opportunities and challenges to Technological University Dublin. It is recognised that GenAI can enhance learning experiences and skills development. Its transformative potential requires a re-evaluation of traditional educational approaches.</p> <p>Impact on Learning:</p> <p>GenAI plays a positive role in the personalisation of educational content and learning experiences by adapting to individual student needs and learning styles. Through the analysis of student data, GenAI algorithms can recommend tailored content, optimise learning pathways, and adjust curriculum complexity based on student performance.</p> <p>GenAI also enhances accessibility, affordability, and efficiency in education, broadening opportunities for learners across diverse backgrounds. It also contributes to the development of critical thinking by presenting different and diverse perspectives and fostering creativity. In addition GenAI, when used appropriately, strengthens problem-solving and creative thinking skills by facilitating different and diverse learning experiences.</p> <p>The course team is trialling the use of AI to support the coding step in the final year project. While it is too early to formulate a definitive opinion on the benefits of such an approach, it seems to be a positive step. Students are required to produce a reflection on their use of AI. A consistent theme was the need to verify AI outputs, refinement of prompts to generate useful code, enhanced testing to validate the outputs. All of this is additional end valuable learning and should position students well for the workplace.</p> <p>Impact on Teaching:</p> <p>GenAI enhances efficiency in educational settings by streamlining various processes, including grading and content summarisation. By automating repetitive and time-consuming tasks, GenAI significantly reduces lecturers' workloads, allowing them to focus on higher-value teaching and mentoring activities.</p> <p>Gen AI fosters innovation in education by integrating technology with traditional pedagogical approaches, reshaping teaching and learning methodologies. It also supports personalised learning while automating administrative tasks, thereby improving institutional efficiency. The adoption of GenAI and AI-driven text generation tools enhances time management by expediting research and reducing the burden of routine tasks.</p> <p>While recognising the issue of Gen AI "Hallucination", Gen AI content generators facilitate deeper engagement by strengthening fundamental skills and fostering advanced cognitive abilities, transforming</p> |

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| <p>from basic learning aids into catalysts for enriched educational experiences. By automating tasks such as summarisation and proofreading, GenAI functions as a cognitive amplifier, freeing mental resources for complex problem-solving and critical thinking.</p> <p>Impact on Assessment:</p> <p>Generative Artificial Intelligence (GenAI) facilitates the automation of assessment processes, accelerating evaluation and delivering prompt, individualised feedback to students. AI-driven tools can assess complex tasks, mitigating bias, and enabling lecturers to focus on curriculum development and instructional design.</p> <p>Research highlights the potential of GenAI to provide reliable and consistent grading for student assessments, ensuring fairness and accuracy. Additionally, AI enhances the efficiency and precision of automated code testing, optimising evaluation processes in computer science education.</p> <p>GenAI tools address key educational challenges by offering immediate, interactive feedback and functioning as intelligent tutoring systems, particularly in coding and debugging tasks. Indeed, in areas that are very structured with well-defined domain boundaries they excel in this area. Machine learning models further contribute to academic integrity by detecting code submissions generated by AI, thereby supporting plagiarism prevention and maintaining assessment authenticity. It must be noted that while these are positive impacts on assessment when used appropriately, academics must be cognisant of the use of GenAI, by students, for content generation. In issues where students are producing content in a programmable or structured domain (coding, math, science, economics, etc), the ability of GenAI to develop material is well recognised.</p> <p>Overall, while AI offers numerous benefits in tertiary education, challenges such as ethical considerations, the need for digital literacy, and potential biases must be addressed. Integrating AI-driven learning can promote critical thinking skills, encouraging educators to rethink their teaching methods for a holistic learning experience.</p> <p>Educators can take several steps to prevent students from unethically using GenAI in their assignment work. The key strategies involve designing assessments that emphasise originality and creativity, promoting AI literacy and ethical awareness, and establishing clear guidelines and policies.</p> <p>Suggested approaches</p> <p>Redesigning Assessments:</p> <p>To ensure academic integrity and the development of higher-order cognitive skills, lecturers must redesign assessments to emphasize originality and creativity. By requiring responses that extend beyond the current capabilities of Generative AI models such as ChatGPT, lecturers can encourage students to engage in independent thought and innovative problem-solving.</p> <p>Additionally, integrating contextual studies into curricula presents an additional challenge for AI-generated responses. By incorporating case studies, real-world applications, and environment-specific analyses that AI cannot easily replicate, lecturers can enhance the depth and applicability of learning experiences.</p> <p>Lastly, fostering a culture of continual learning is essential in preparing students for an evolving professional landscape. Educational frameworks should prioritise creativity, forward-thinking problem-solving, and critical inquiry, enabling students to adapt, upskill, and remain ahead of technological advancements.</p> <p>Promoting AI Literacy and Ethical Awareness:</p> <p>GenAI ethics needs to be incorporated into BSc in Business Information Systems curricula as it is essential for equipping students with a comprehensive understanding of the ethical implications and responsibilities associated with AI technologies. By fostering responsible innovation and informed decision-making, such integration ensures that future graduates develop a critical awareness of AI's impact on society.</p> <p>Additionally, educating students about the risks, biases, and limitations of AI is imperative in promoting its' ethical and transparent use. A thorough understanding of these challenges enables students to engage with AI technologies critically, mitigating potential biases and ensuring their responsible application in various domains.</p> |
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| <p>Establish Clear Guidelines and Policies:</p> <p>The establishment of clear ethical guidelines is essential in preventing the misuse of AI text generators within the Irish educational context. By implementing well-defined ethical frameworks, institutions can promote the responsible use of AI while safeguarding academic integrity.</p> <p>Ensuring transparency and accountability in the use of GenAI requires the use of systems that align with the university's ethical teaching, learning and assessment standards. The use of these systems fosters trust and ethical use and integration of AI Technologies.</p> <p>Lecturers can foster critical thinking by creating complex scenarios for students to analyse and evaluate, encouraging them (the students) to generate innovative solutions, and stimulating higher-level cognitive skills. This involves moving from traditional information delivery to guiding students in responsible and ethical GenAI use.</p> <p>Suggested considerations to take into account. (Dublin University 2025)</p> <ul style="list-style-type: none"> • Consider the module learning outcomes. What do you want your students to achieve with this assessment? What core skills do you intend for them to develop? For more information on how to design assessments to align with learning outcomes see: Linking Assessment Methods with Learning Outcomes using Blooms Taxonomy. • Consider how exactly students may or may not use GenAI for their assessment in order to meet learning outcomes. • How vulnerable are these learning outcomes/assessments to Gen AI? If the task focuses on knowledge, comprehension, and written accuracy, it will be vulnerable. However, learning outcomes/assessment focused on originality, specific contexts, and critical thinking, will be less vulnerable. • Is this an opportunity to review learning outcomes and consider the incorporation of higher order skills such as analytical thinking or critical analysis? • If learning outcomes and assessments are already focused on higher order skills, could GenAI be used to further develop these skills? <p>How other universities approach the use of GenAI in teaching, Learning and Assessment:</p> <p>The Open University:</p> <p>AI concepts and applications</p> <ul style="list-style-type: none"> • Identify key opportunities to introduce or discuss AI concepts and applications, using case studies and examples to illustrate them. • Introduce GenAI-related activities in a scaffolded way, ensuring that students can practise necessary skills before assessments. • Provide context and explanations related to disciplines and employability to highlight AI's significance. • Provide guidance on resources for finding information about AI. • Know where to find information on the latest developments in AI and education. <p>Learning and teaching with AI</p> <ul style="list-style-type: none"> • Embed AI competencies into module material and signpost to institutional guidance on Teaching and Learning, and on responsible use. • Develop student activities that require identifying and addressing AI challenges. • Promote activities that encourage students to critically evaluate AI content through communicative and reflective exercises. • Support students in crafting effective prompts and refining AI content to improve their final output. • Develop online resources (e.g., readings, videos, tutorials) on AI topics. <p>AI creativity</p> <ul style="list-style-type: none"> • Create opportunities for students to practise AI-related skills with an EDIA perspective. • Offer guidance and examples on prompt creation and adaptation with a focus on EDIA principles. • Contextualise AI activities to highlight the importance of human skills. |
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| | <ul style="list-style-type: none"> • Invite AI experts to contribute to modules or offer guest lectures. <p>AI ethics</p> <ul style="list-style-type: none"> • Offer activities which explore opportunities and challenges of AI, e.g. forum activities on ethical implications. • Encourage students to identify and address potential biases in AI-related tasks. • Help students to consider AI's ethical, societal and environmental impacts. • Encourage students to evaluate the credibility and reliability of online sources. • Emphasise the importance of copyright and intellectual property compliance. • Survey and take account of student attitudes to their engagement with AI enhanced tools and activities. • Empower students to make informed individual and collective decisions about using AI in their education and working life. <p>AI in society</p> <ul style="list-style-type: none"> • Offer activities that consider the environmental impact of using AI (e.g. the carbon footprint due to over reliance; the exploitation of labour in the Global South) and encourage engagement with sustainability competencies. • Encourage students to examine AI's societal impact, such as workforce exploitation and the digital divide, and explore ways to address these issues. • Offer opportunities to consider the agency of AI (e.g. control and power across the globe). • Take steps to address the non-inclusive nature of AI outputs. <p>AI careers</p> <ul style="list-style-type: none"> • Provide examples of AI applications in specific disciplines and job sectors, emphasising EDIA principles. • Provide opportunities for students to use human skills such as creativity, empathy and decision-making when using AI. • Offer opportunities for students to apply relevant, sector-specific employability skills when interacting with AI. • Offer activities which explore ways of harnessing AI tools to enhance career prospects, e.g. creation of CVs, portfolios and evidence. • Apply AI knowledge to real-world challenges, showcasing its workplace importance and practical use through employer-informed activities. • Explore how employers use (or don't use) AI in the recruitment process. <p>The Australian Government Tertiary Education Quality and Standards Agency in November 2024 produced first report entitled "Gen AI strategies for Australian higher education: Emerging practice". The document, created in response to a request for information from higher education providers, outlines emerging practices for addressing the risks and opportunities presented by Gen AI and is ultimately aimed at supporting tertiary education institutes in ethically integrating GenAI into the educational processes while at the same time maintaining the integrity of the academic awards. This report advocates that, amongst others, the following approaches be adopted:</p> <p>Assessment Security and Transformation:</p> <ul style="list-style-type: none"> • Conducting risk analysis of assessment methods to identify areas needing enhanced security. • Evaluating the impact of different delivery modes on assessment security. • Securing high-risk, key assessments as a priority. • Providing guidance to teaching staff on evaluating and enhancing assessment security. • Aligning the use of AI in assessments with learning outcomes and graduate capabilities. • Being mindful of the risks of false positives and unintended bias associated with AI-detection tools. • Mapping assessment items to assure learning across units, majors, or awards to ensure program-level learning outcomes are demonstrated. • Including GenAI in the institution's overarching academic integrity strategy. |
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| | <p>System Changes:</p> <ul style="list-style-type: none"> • Updating learner management systems to reflect institutional processes and practices related to GenAI. • Reviewing course management systems to prompt consideration of GenAI use and its impact on assessment effectiveness. • Updating academic misconduct management systems to record GenAI misuse. • Updating templates (assessment coversheets, marking rubrics, unit reviews) to include GenAI use where relevant. <p>Communication Strategy:</p> <ul style="list-style-type: none"> • Including information on institutional GenAI directives in student information packs and during orientation. • Updating student handbooks and staff induction materials. • Delivering messaging about responsible GenAI use close to assessment periods. • Creating a dedicated GenAI webpage or central hub with resources and contacts. • Developing an ongoing, multifaceted communications strategy across channels, tailoring messages to relevant cohorts. <p>Student Support and Engagement:</p> <ul style="list-style-type: none"> • Updating student welcome materials with information on the institutional approach to GenAI. • Updating academic integrity modules to inform students about the ethical use of GenAI. • Providing access to GenAI training resources to increase student capabilities. • Gathering feedback on the impact of GenAI policies on student learning experiences. • Supporting students in co-creating GenAI strategies and communications. • Reviewing guidance on institutional GenAI use to mitigate safety, privacy, and intellectual property risks. • Informing students of the institutional approach to GenAI. • Establishing clear guidelines for ethical GenAI use. • Providing opportunities for students to develop skills in using GenAI tools. • Implementing equity measures to provide access to GenAI tools. <p>Staff Support and Engagement:</p> <ul style="list-style-type: none"> • Checking staff knowledge about GenAI and their training needs. • Creating a resource hub for staff with centrally stored information. • Communicating policy changes to staff and explaining the rationale. • Supporting staff participation in student-centred academic integrity modules. • Providing access to GenAI training resources for staff. • Integrating staff feedback about GenAI use when reviewing policies. • Offering staff paid participation in specialized short courses. • Establishing a mentorship program for staff to develop skills in using GenAI tools. • Informing staff of institutional expectations and changes to existing practice. • Supporting staff to implement the institutional strategy and providing professional development opportunities. <p>Generative AI: Detection Tools</p> <p>https://Originality.ai</p> <p>https://hivemoderation.com/ai-generated-content-detection</p> <p>https://gowinston.ai</p> <p>https://gptzero.me</p> <p>https://monica.im/tools/ai-content-detector</p> <p>This text has been added to the program validation document at page 84.</p> |
| 4. | The Programme Team to present more clearly optional module selection. |

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| | <p>Response:</p> <p>All modules currently with “Elective” status will be made mandatory until the UEM module is fully implemented. When this occurs, the programme board will revisit the situation and identify the proposed elective modules under the UEM model and seek to have the programme approved schedule amended.</p> |
| 5. | <p>The School Executive to consider transitional arrangements of existing students with a view to continuance and completion on the current programme or progression onto the new programme.</p> <p>It is intended that the new version of the programme be introduced in a phased fashion over a 4 year period beginning with the 1st year of the programme. This is due to the redesign and structural changes brought about by the introduction of the workplace of the degree programme. Based on a projected commencement date of 2026, the design team envisage the following phase in steps.</p> <p>Figure 1 Phase in of new programme</p> <p>To manage this phase approach the following elements are required:</p> <ol style="list-style-type: none"> 1. From September 2025, no Progress and Carry exemptions are granted to students on the first year of the old version of the TU913\TU777 programme. This condition is rolled out to the 2nd year of the old programme starting in September 2026. The same condition is rolled out to the 3rd year of the old version of the programme in the following academic year. 2. In September 2026, the new programme will begin with Year 1 only, the old version will run with Years 2,3 and 4. In Sept 2027, both Years 1 and 2 of the new version will run with only Years 3 & 4 of the old version. In September 2028, years 1,2 and 3 of the new version will run along with Year 4 of the old version and finally in September 2029 all 4 years of the new version will run live. <p>Students who fail to progress into the last available academic year of the existing version of the programme will be given the option to repeat the same year of the programme in the new version of the programme. For example, if a Year 2 student in the 2026/27 Academic year fails to progress into the last Year 3 of the current version, then the only route available to them will be to repeat Year 2 on the new structure. This may require bridging studies which will depend upon their circumstances and credits accumulated. The main area of risk in this area will be their knowledge of object-oriented programming as under the new structure, this subject domain moves back to Year 1 of the new structure.</p> |
| 6. | <p>The Programme description needs to address the needs and language of the target audience.</p> <p>Response:</p> <p>The preamble to the validation document has been removed and replaced with the following text. This can be found on Page 1 of the validation document under the heading “Programme Description”.</p> <p>The BSc in Business Information Systems (BIS) at TU Dublin is a comprehensive programme designed to develop professionals working at the intersection of business strategy and information technology. The</p> |

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| <p>curriculum aims to equip graduates with the multifaceted professional skill set necessary to excel in a rapidly evolving digital landscape. The job that you may end up in may not even exist as you read this text. Here's an overview of the programme's key features:</p> <ul style="list-style-type: none"> • Programme Aims: The programme is designed to develop graduates' abilities in critical analysis and decision-making within cross-functional business and information systems environments. Graduates will be able to provide well-reasoned solutions to business challenges, integrating considerations of sustainability and ethical practice. • Curriculum Structure: The curriculum blends core business principles with specialised IT knowledge. Mandatory modules cover essential areas such as accounting, business statistics, and programming, while elective options allow students to tailor their learning to specific interests. Emerging topics such as digital transformation, agile methodologies, and large language models are integrated to ensure relevance to current industry trends. • Experiential Learning Opportunities: A cornerstone of the programme is the emphasis on practical experience. The work placement in Semester 2 of Year 3 provides invaluable real-world exposure, allowing students to apply their skills in a professional setting. For students unable to undertake a placement, an alternative 30-credit academic programme offers further learning opportunities. • Graduate Attributes Development: The programme intentionally fosters the development of key graduate attributes, including digital capabilities, a commitment to sustainability, and collaborative problem-solving skills. Graduates are prepared to be adaptable, lifelong learners equipped to thrive in a digitally connected world. • Career Trajectories: Graduates of the BSc in Business Information Systems are well-positioned to pursue a variety of roles that require a blend of business acumen and technical expertise. Potential career paths include: <ul style="list-style-type: none"> ○ Business Analyst: Analysing business processes and recommending technology-driven solutions to improve efficiency and effectiveness. ○ IT Consultant: Providing expert advice and guidance to organisations on how to best leverage technology to achieve their business goals. ○ Data Analyst: Collecting, analysing, and interpreting data to identify trends and insights that inform business decisions. ○ ERP (Enterprise Resource Planning) Specialist: Implementing and managing ERP systems to integrate various business functions and streamline operations. ○ Systems Analyst: Designing and developing IT systems to meet specific business needs. ○ E-Commerce Manager: Overseeing the online sales and marketing activities of a business. ○ IT Risk Analyst: Identifying and assessing potential IT risks and developing strategies to mitigate them. • Programme Structure and Support: The programme's phased structure ensures a smooth transition for students, with ongoing support from faculty and access to resources such as the Brightspace virtual learning environment. Exit awards are available at Levels 6 and 7 to recognise students' achievements at various stages of the programme. <p>The design of the programme is based both on the feedback from Industry experts and graduates from the existing version of the programme. It has also been aligned with the strategic objectives of the University which identifies the need to produce graduates who are skilled, capable and industry ready.</p> <p>A key element of the support given to students is around career development and support. TU Dublin's Career Development Centre provides comprehensive support to students, assisting them in developing essential career skills such as self-awareness, occupational research, and effective communication. The programme also equips their students with a broad range of skills, including technical proficiency, business process understanding, leadership, and expertise in areas such as data analysis, project management, and strategic thinking.</p> <p>The BSc in Business Information Systems at TU Dublin offers students a robust and relevant education that prepares graduates to be leaders and innovators in the dynamic world of business and technology in an area that Irish industry values and seeks very highly.</p> |
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| | <p>There is strong demand for graduates of this programme, who combine a business understanding with a strong technical knowledge is high across all business sectors. Graduates are attractive to organisations operating in IT consulting, financial services, manufacturing, and pharmaceutical sectors. These companies need to continuously improve their business processes but also stay compliant with evolving rules regulations and sustainability goals. In addition to the traditional business sector, large tech companies who are based in Ireland, need a wide range of skills and abilities to deliver their services across the globe from Ireland. These companies also recruit from the programme. Demand for business and I.T skills is also driven by Ireland's large thriving technology and financial consulting services sector. Business and I.T graduates are recruited by these consulting organisations and work providing outsourced services to firms operating in Ireland and across the globe.</p> <p>Expected remuneration is also a very important factor to consider when reviewing potential academic programme offerings. To provide a realistic estimate, it is important to consider that salaries can vary significantly based on factors such as Role played, company size and type, location and finally skills and experience.</p> <p>Ireland, as a global hub for technology and innovation, hosts numerous multinational corporations and indigenous enterprises. These companies actively seek graduates proficient in business systems analysis, IT project management, and enterprise software solutions. This high demand suggests competitive starting salaries for qualified graduates.</p> <p>To get an accurate understanding of current starting salaries, it's recommended that you consult with TU Dublin's Career Development Centre or online resources for salary benchmarking specific to the Irish job market. However, based on a review of offerings from employment sites, recent graduates entering the Business IT sector in Ireland can expect varying salary levels based on their specific roles and experience. For instance, a Graduate Business Analyst typically earns around €35,987 per year, while a Junior Data Scientist with less than one year of experience might start at approximately €28,000 annually. More experienced Junior Data Scientists (1-3 years) can earn up to €44,000 per year. On average, entry-level positions in this sector offer salaries ranging from €30,000 to €35,000 per year, with potential increases as experience and expertise grow. Overall, the average graduate salary in Ireland is about €35,000 per year, with entry-level positions starting at €30,000 and experienced workers earning up to €42,500 annually.</p> <p>This programme is designed to replace the existing version of the TU913 due to a loss of distinct identity for TU913 and its associated programs at several levels. Students often encounter difficulties locating the TU913 program on the CAO website, and confusion arises between the TU902 and TU913 codes. Operationally, this integration has led to the streams being "locked" together, restricting their individual growth and limiting the natural evolution of each program. Furthermore, although the leaving certificate profile of students on TU913 tends to match the profile of programmes such as Business Computing and Business Analytics offered in Aungier St., as it is the smaller programme in the combined intake, this profile is lost as it is the combined range of points that is reflected by the CAO.</p> |
| 7. | <p>Programme documentation should be prospective and not include historic details.</p> <p>Response:</p> <p>The Programme History paragraph on page 1 has been removed and replaced with a section entitled Programme Description</p> |

| Conditions of Approval | |
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| 1. | <p>The Programme Team should ensure that PLOs/ MLOs are to be written with appropriate language that demonstrates links/awareness to industry standards and expectations in addition to TU Dublin strategic requirements.</p> |
| | <p>Response:</p> <p>The Programme Learning Outcomes were revisited and rewritten as follows. These have been used to replace the original PLO's and can be found on Page 24 of the Version 3 document.</p> <p>On completion of the programme, a student will be able to:</p> <p>The current programme learning outcomes are written as follows:</p> <ol style="list-style-type: none"> 1. Validate their ability to tackle decision making in a cross functional specialist business and information systems environment in a coherent, critical, sustainable and logical fashion providing solutions to business problems. (Knowledge - Skill Selectivity) <p>This will be replaced by :</p> <p>Demonstrate appropriate judgement in complex planning, design, technical, and management functions within a cross-functional specialist business and information systems environment. This includes providing coherent, critical, sustainable, and logical solutions to business problems.</p> <ol style="list-style-type: none"> 2. Critique and formulate the range of necessary skills that allows them to operate at the intersection of the business and IT domains. They will achieve this through creating the ability to conduct critical evaluation in all domains, formulating opinions and solutions, synthesising and integrating complex material from a range of learning sources. The student will demonstrate their conceptual learning, critical thinking, reflective practice, and problem-solving for business (Knowledge Skill-Range). <p>This will be replaced by :</p> <p>Master complex and specialised skills and tools needed to work effectively at the intersection of business and IT. This involves using and adapting advanced skills and tools to carry out guided research, professional tasks, or advanced technical activities. Students will critically evaluate different areas, develop opinions and solutions, and integrate complex information from various sources. They will demonstrate their understanding, critical thinking, reflective practice, and problem-solving skills in a business context.</p> <ol style="list-style-type: none"> 3. Evaluate and validate the relevant thematic areas that intersect the business and information systems domains. They will be able to integrate business knowledge and skills with relevant disciplinary depth, in the context of emerging practice and technology (Knowledge – Breadth) <p>This will be replaced by</p> <p>Understand the theory, concepts, and methods related to business and information systems. Evaluate and validate key thematic areas where these domains intersect. Integrate business knowledge and skills with in-depth disciplinary understanding, considering emerging practices and technologies.</p> |

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| | <p>4. Identify the detailed thematic business and technical skillsets required to operate effectively, efficiently, sustainably and professionally in both business and information systems domains. (Knowledge-Kind)</p> <p>This will be replaced by</p> <p>Demonstrate detailed knowledge and understanding in specialised areas of business and information systems, including current advancements in the field. Identify and apply the necessary business and technical skills to operate effectively, efficiently, sustainably, and professionally in both domains.</p> <p>5. Act effectively and efficiently in peer group exercises, presentations, and assessments. Develop their interpersonal skills, and refined their communication abilities, across a variety of formats and contexts, demonstrating an ability to facilitate both individual and group performance in varied contexts. They will be able to communicate, connect and collaborate with a wide-range of stakeholders from business and society. (Competence – Role)</p> <p>Will be replaced by</p> <p>Work effectively with peers and qualified professionals, demonstrating leadership in diverse and complex group settings. Develop strong interpersonal and communication skills across various formats and contexts. Facilitate individual and group performance and collaborate with a wide range of stakeholders from business and society.</p> <p>6. Embrace self-management in terms of time, planning and behaviour, motivation, self-starting, individual initiative and enterprise, ethical standards and professionalism. They will reflect, be adaptive and collaborative in learning and the ability to cope with a range of learning challenges and scenarios. (Competence - Learning to Learn)</p> <p>Will be replaced by:</p> <p>Learn to manage their time, planning, and behaviour independently and professionally. Stay motivated, take initiative, and uphold ethical standards. Reflect on their learning, adapt to new and unfamiliar situations, and collaborate effectively. Develop their ability to handle various learning challenges and scenarios.</p> <p>7. Acknowledge and empathise with all the stakeholders and communities that operate within the business and information systems domains. They will appraise themselves of their roles and objectives and critique how they impact on the graduate input and activities. (Competence – Insight)</p> <p>Will be replaced by:</p> <p>Understand and empathise with all stakeholders and communities in the business and information systems fields. Reflect on their roles and objectives and evaluate how they influence their contributions and activities as a graduate.</p> <p>8. Synthesise the learning outcomes from all the thematic modules and learn to integrate and apply their outcomes in the context of SDG influenced business information systems projects. They will be sustainability-literate, act as a global citizen, and serve as a responsible business practitioner for societal impact. (Competence – Context)</p> <p>Will be replaced by:</p> |
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| | <p>Use advanced skills to integrate and apply knowledge from all thematic modules in the context of SDG influenced business information systems projects. Take responsibility for their decisions and actions, demonstrating sustainability literacy, global citizenship, and responsible business practices for positive societal impact.</p> <p>Module Learning Outcomes</p> <p>The following module learning outcomes have been revisited and amended in line with industry expectations in addition to introducing GenAI concepts into the programme at an earlier stage:</p> <ul style="list-style-type: none"> • BSIT H1002 Introduction to Programming (language and reduced MLO's) • BSST H1044 Leading Modern Enterprises (language and reduced MLO's) • BSIT H1003 Introduction to Web Design (language and reduced MLO's) • BSST H1042 Exploring Modern Enterprises (language and reduced MLO's) • BSIT H1006 Introduction to Business Information Systems (Addition of AI Concepts into Indicative Syllabus) • BSST H1041 Accounting (revision of MLO's) • BSIT H2007 Business Information Systems Operations (Inclusion of Operational implementation of Gen AI Tools into the Indicative Syllabus) • BSST H2014 Principles of Marketing (revision of MLO's) • ACFN 4023 Global Business Strategy (retitled and inclusion of SDG's into MLO's) |
| 2. | <p>The Programme Team should match the skill set of the graduate to industry skills needs, to ensure the programme meets the demands of a rapidly evolving industry e.g., Cloud Skills.</p> <p>Response:</p> <p>The design team recognise the need to ensure that the design of the new programme is robust enough to ensure that the programme will adequately meet the needs of industry requirements of its graduates as it evolves. This is particularly important in the context of GenAI and Cloud services.</p> <p>The design team recognise that GenAI will act as a key element in the evolving landscape of the programme and will be increasingly embedded in business processes. This required that it is also embedded in the skillsets of graduates from the programme. This requires that it be embedded in the graduate's ability to use GenAI tools. The embedding of GenAI skillsets will be implemented through the development of AI literacy within the modules based on the AI Literacy model by proposed by Leung et al. (2021)*, based on Bloom's Taxonomy which provides dimensions applicable to teaching and learning, including "Know & understand," "Use & apply," "Evaluate and create," and "Reflect on and consider AI ethics". The model can be enhanced through the development of a critical awareness of GenAI models, understanding how they work, why their content shouldn't be blindly trusted, and recognising their social, intellectual, and environmental implications. The programme will aim to cultivate this critical perspective, especially given the limitations and risks of GenAI in modules delivered throughout the programme, starting in the first semester.</p> <p>As modules are delivered, the programme team will endeavour to promote the positive aspect of GenAI tools such as personalised learning, customised lesson plans, content generation, writing assistance, idea generation, research support, Internet search, rubric development and personalised feedback, interactive learning, the ability to explain complex issues in a simplified manner. Aligned with this approach is the need to educate users of GenAI to limitations such as the potential for bias, spreading misinformation, ("hallucinations," falsified citations), increasing inequity (due to paid tiers), violating privacy, facilitating cheating, undermining critical thinking, and the sustainability impact of data centres. A key element of this lies in the education of student body in the ethical use GenAI tools. As regards assessment, GenAI can</p> |

prove to be an invaluable tool in the support of lecturing staff through its ability to generate varied assessment materials (MCQ's, exam questions, essay questions, and other curated materials that are or can be mapped to module learning outcomes), provided assessment feedback on issues such as writing style, grammar and basic content. The higher order element of content will still require analysis to be carried out by the lecturer/examiner.

The following section has been written in response to Condition 2. This has been inserted into Version 3 at page 63.

Review and mapping of the Key Industry requirements

This document is based on the feedback for industry, desk research and the Industry Round table discussion. The key industry requirements and skills emphasised for graduates in the sector include a hybrid skill set, data literacy, and a blend of technical acumen with problem-solving abilities. Employers also value practical experience and continuous learning.

The most emphasized requirements and skills can be summarised as follows:

- **Hybrid Skill Set:** Graduates need a mix of ICT skills, business understanding, communication and leadership abilities, and soft skills like collaboration and problem-solving. This combination enables them to bridge the gap between technology and business, facilitating digital transformation.
- **Data Literacy:** A profound understanding of data management principles is crucial. Graduates should be able to navigate data challenges, including those related to legacy data, and understand the importance of data quality, integration, and governance.
- **Technical and professional skills:** While technical expertise is essential, graduates also need professional skills such as communication, negotiation, and collaboration. The panel indicated that the preferred term for "Soft Skills" is "Professional skills".
- **Adaptability and Agility:** Graduates must adapt to new contexts and embrace agility through practices like iterative development and collaboration. They should also understand how to scale cloud-based systems to meet changing demands.
- **Practical Experience:** Employers look for project work, internships, and relevant subject titles on a graduate's CV. Internships, in particular, are seen as crucial for shaping a student's experience and can lead to future employment opportunities.
- **Cloud Literacy:** Understanding cloud architecture, models, and services is vital due to the pervasive adoption of cloud technologies.
- **Problem-Solving and Critical Thinking:** Graduates should be able to dissect complex issues and devise effective solutions. They also need to articulate problems effectively and stay current with emerging trends.
- **Awareness and Discipline:** A strong understanding of module purposes and a commitment to good practice, rigor, and discipline in analysis, design, and implementation are foundational.

* Ng, D. T. K., Leung, J. K. L., Chu, S. K. W., & Qiao, M. S. (2021). Conceptualizing AI literacy: An exploratory review. *Computers and Education Artificial Intelligence*, 2, 100041. <https://doi.org/10.1016/j.caeai.2021.100041>

The following tables demonstrate where the key industry skillsets are assessed and has been added to the programme documentation at page 70.

| | | Hybrid Skill Set | Data Literacy | Technical and professional skills | Adaptability and Agility | Practical Experience | Cloud Literacy | Problem-Solving and Critical Thinking | Awareness and Discipline |
|----------------|--|------------------|---------------|-----------------------------------|--------------------------|----------------------|----------------|---------------------------------------|--------------------------|
| Year 1 Modules | | | | | | | | | |
| BSIT H1002 | Introduction to Programming | X | X | X | X | X | | X | X |
| BSIT H1012 | Business Maths & Statistics 1 | X | | | | | | X | X |
| BSIT H1003 | Introduction to Web Design | X | X | X | | X | X | | X |
| BSIT H1004 | Object Oriented Programming | X | X | X | X | X | | X | X |
| BSIT H1005 | Introduction to Requirements Analysis | X | | X | X | X | | X | X |
| BSIT H1006 | Introduction to Business Information Systems | X | | | X | | X | | X |
| BSIT H1018 | Business Maths & Statistics 2 | X | | | | | | X | X |
| BSST H1044 | Leading Modern Enterprises | X | | X | X | | | X | |
| BSST H1042 | Exploring Modern Enterprises | X | | X | X | | | X | |
| BSST H1041 | Accounting | X | | X | | X | | X | |

| | Hybrid Skill Set | Data Literacy | Technical and professional skills | Adaptability and Agility | Practical Experience | Cloud Literacy | Problem-Solving and Critical Thinking | Awareness and Discipline |
|--|------------------|---------------|-----------------------------------|--------------------------|----------------------|----------------|---------------------------------------|--------------------------|
| Year 2 Modules | | | | | | | | |
| BSIT H2003 UX Design | X | | X | X | X | | X | X |
| BSIT H2006 Server-Side Web Programming | | X | | X | X | X | X | X |
| BSIT H2007 Business Information Systems Operations | | X | X | | X | X | | X |
| DATA H2002 Database Management and Design | X | X | X | X | X | X | X | X |
| PRJM 2003 Project Management | X | | X | X | | | X | X |
| BSIT H2002 Business Modelling and Simulation | X | X | X | X | X | | X | X |
| BSIT H2008 Design Thinking in Technology | | | X | X | X | | X | X |
| DATA H2004 Enterprise Databases | | X | X | X | X | X | | X |
| MNGT H2011 Digital Product Management | X | | X | X | | | | X |
| PROG H2000 Web Framework Programming | | X | X | | X | X | X | X |
| Year 3 Modules | | | | | | | | |

| | | Hybrid Skill Set | Data Literacy | Technical and professional skills | Adaptability and Agility | Practical Experience | Cloud Literacy | Problem-Solving and Critical Thinking | Awareness and Discipline |
|----------------|---|------------------|---------------|-----------------------------------|--------------------------|----------------------|----------------|---------------------------------------|--------------------------|
| BSIT H3002 | Mobile Applications Development | | X | X | X | X | X | X | X |
| BSIT H3003 | Introduction to Business Intelligence | X | X | X | | X | | X | X |
| BSIT H3012 | Object Oriented Analysis & Design | X | X | X | X | X | | X | X |
| DATA H3012 | Data Visualisation and Storytelling | X | X | X | X | X | | X | X |
| INFS 3028 | Software Quality Assurance | | X | X | X | X | | X | X |
| MNGT H3031 | Agile Project Management for Developers | X | | X | X | X | | X | X |
| WKPL 3008 | Work Placement | X | X | X | X | X | X | X | X |
| Year 4 Modules | | | | | | | | | |
| ACFN H4023 | Business Strategy | X | | X | X | | | X | X |
| BSIT H4001 | Advanced Business Intelligence | X | X | X | X | X | X | X | X |
| BSIT H4024 | IT Project 1 - Analysis and Design | X | X | X | X | X | X | X | X |

| | | Hybrid Skill Set | Data Literacy | Technical and professional skills | Adaptability and Agility | Practical Experience | Cloud Literacy | Problem-Solving and Critical Thinking | Awareness and Discipline |
|------------|---|------------------|---------------|-----------------------------------|--------------------------|----------------------|----------------|---------------------------------------|--------------------------|
| ETHC H4002 | Governance & Ethics in IS and AI | X | | X | | | | | X |
| SUST H4000 | Digital Innovation for Sustainability | X | X | X | X | | | | X |
| BSIT H4018 | Information Systems Strategy | X | | X | X | | | | X |
| BSIT H402 | IT Project 2 - Implementation | X | X | X | X | X | X | X | X |
| LEAD H4003 | Leadership & Emotional Intelligence | X | | X | X | | | X | X |
| STRA H4004 | Large Language Models: Strategies and Practices in Business | X | X | X | | X | X | | X |
| TECH 4007 | Emerging Technology & Organisation Change | X | X | X | X | | X | | X |
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| Conditions of Approval (Cont) | |
|-------------------------------|---|
| 2 cont. | <p>The modules displayed in the above matrix are structured to support the attainment of industry requirements, with an emphasis on key skills and knowledge areas. Here's how the modules align with industry needs:</p> <ul style="list-style-type: none"> • Hybrid Skill Set: Modules across all years integrate ICT skills, business understanding, communication, leadership, and soft skills like collaboration and problem-solving. For example, "Leading Modern Enterprises" and "Exploring Modern Enterprises" in Year 1, and "UX Design" and "Business Information Systems Operations" in Year 2, contribute to this hybrid skill set. • Data Literacy: The curriculum includes modules that focus on data management principles, data quality, integration, and governance. Examples include "Business Maths & Statistics" in Year 1, "Database Management and Design" and "Enterprise Databases" in Year 2, and "Data Visualisation and Storytelling" and "Introduction to Business Intelligence" in Year 3. • Technical and Professional Skills: While technical expertise is crucial, the modules also develop professional skills such as communication, negotiation, and collaboration. Modules like "Project Management" in Year 2, "Software Quality Assurance" and "Agile Project Management for Developers" in Year 3, and "Leadership & Emotional Intelligence" in Year 4, address these skills. • Adaptability and Agility: Graduates need to adapt to new contexts and embrace agility. Modules such as "Design Thinking in Technology" in Year 2 and "Agile Project Management for Developers" in Year 3 promote iterative development and collaboration. • Practical Experience: Employers value project work, internships, and relevant subject titles. The curriculum includes project-based modules like "IT Project 1 - Analysis and Design" and "IT Project 2 - Implementation" in Year 4, as well as opportunities for work placement in Year 3. • Cloud Literacy: Understanding cloud architecture, models, and services is vital. Whilst there is no specific module on "Cloud Services", the key aspects of cloud services are embedded in modules such as Introduction to Web Design and Introduction to Business Information Systems in Year1. In year 2, students are again exposed to Cloud Services in BIS Operations, both of the database modules and in Server Side and Web based programming. In third year, the students will experience elements of cloud services in Mobile Applications Design. It is expected that they will be exposed to practical experience of the are in their work placement. Finally in their 4th year, students will pick up exposure to Cloud Services in Advanced Business Intelligence, Digital Innovation for Sustainability, Information Systems Strategy, IT Project 2 – Implementation, Large Language Models: Strategies and Practices in Business and finally Emerging Technology & Organisation Change • Problem-Solving and Critical Thinking: Graduates should be able to dissect complex issues and devise effective solutions. Modules like "Object-Oriented Analysis & Design" in Year 3 and "Advanced Business Intelligence" in Year 4 focus on problem-solving and analytical skills. • Awareness and Discipline: A strong understanding of module purposes and a commitment to good practice, rigor, and discipline in analysis, design, and implementation are foundational. The curriculum emphasizes these aspects across various modules |
| 3. | <p>The programme team must include the development of skills in Artificial Intelligence in technology and business contexts across each year of the programme.</p> |
| | Response: |

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| <p>The Programme team has met to review this condition. Based on the discussion Gen AI elements are to be included in the following modules:</p> <ul style="list-style-type: none"> • Introduction to BIS (Year1,sem1), • Business Information Systems Operations (Year2, Sem 1), • Introduction to Business Intelligence (Year 3, Sem 1) • Data Visualisation and Storytelling (Year 3 Sem 1) • Advanced Business Intelligence (Year 4 Sem1). • Final Year Project. <p>An explanation of the changes implemented are listed below.</p> <p>1 - BSIT H4001: Advanced Business Intelligence</p> <p>Indicative Syllabus Heading: Automated Data Integration Design using AI, Development and Processes.</p> <p>Description:</p> <p>This section will cover the data integration design steps through the use of AI systems that support automated data integration involved in creating the process model for each stage and showing how to best determine the design specifications. Included within this section is a methodology for data integration tool selection based on enterprise and end user requirements.</p> <p>Indicative Syllabus Heading: AI Powered Predictive Analytics.</p> <p>Description:</p> <p>In this section analytics as a tool for forecasting and modelling are covered. In particular, the leveraging of Generative AI models that allow businesses to predict future trends, identify potential risks, and optimize strategies. The concept of analytical hubs and sandboxes are outlined to the student as well as the challenges of scoping and architecting in terms of data analysis.</p> <p>Indicative Syllabus Heading: Advanced Microsoft Power BI.</p> <p>Description:</p> <p>During the lab portion of the module, students build on the fundamentals of Microsoft Power BI they were taught in the previous BI module. In this section that will involve an emphasis on advanced analytics using Python and R scripts. Students will also be introduced to the concepts and use of conversational BI Tools, AI chatbots and virtual assistants embedded within BI platforms. They will be shown how these can assist end users in navigating through complex datasets. Subtopics covered will include mastering data validation with regular expressions, importing data from diverse sources, and applying advanced algorithms for transformation. Also covered within the labs will be techniques like pseudonymization, anonymization, and data masking as well as a broad understanding of leveraging Python and R for analysis.</p> <p>2 – BSIT H3003: Introduction to Business Intelligence</p> <p>Indicative Syllabus Heading: Foundational BI Concepts</p> <p>Description:</p> <p>An overview outlining the importance of data and analytics in relation to modern enterprise and the correct process for formulation of a business and technical case for a BI team. Students will also be introduced in this section to the process of integrating Generative AI into Business Intelligence. This will include the use of AI to identify data patterns and trends, to detect risks and opportunities and to personalise data visualisation.</p> <p>3 – DATA H3012 Data Visualisation and Storytelling</p> <p>Indicative Syllabus Heading: Telling Stories with Data Visualisation and AI</p> |
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| | <p>Description:</p> <p>This topic will expand on the introductory precepts and examine in depth the role of data storytelling for analysts and decision makers. The criticality of selecting the correct design styles and data graphics for the intended target audience are also discussed in this topic. These will also be linked to the anatomy of a data story in this topic. In this section students will also learn about visualisation skills and understood cutting-edge Generative AI tools in order to create data visualisation artifacts.</p> <p>Indicative Syllabus Heading: Data Visualisation Elements</p> <p>Description:</p> <p>In this topic there is in-depth examination of the practical elements involved in best practice data visualisation. This section will align the storytelling elements outlined in the previous sections with an understanding of the key visual aesthetic vocabulary that is required for good data visualisation. Students will also explore a diverse range of real-world scenarios and applications where AI plays a crucial role in data visualisation. They will be shown how to leverage Generative AI tools effectively to create insightful and impactful visualisations that will drive informed decision-making.</p> <p>4 - BSIT H1006 Introduction to Business Information Systems</p> <p>Indicative Syllabus Heading: AI Artificial Intelligence (AI)</p> <p>Description:</p> <p>Understand the role and impact of AI in Business Information Systems</p> <p>5 - BSIT H2007 Business Information Systems Operations</p> <p>Indicative Syllabus Heading: Operational AI</p> <p>Description: Operational implementation of AI tools</p> |
| 4. | <p>Out of date language in the modules to be removed and updated in all modules.</p> <p>Response:</p> <p>All tech modules have been reviewed in light of above condition by module editors and amended accordingly.</p> |
| 5. | <p>The programme team to state explicitly the USP of this programme, in its broadest sense. This should include an analysis of competitor programmes and a proposal for the effective market differentiation of this new programme.</p> <p>Response:</p> <p>The programme team conducted a detailed analysis of the Business Information Systems Landscape on the island of Ireland, comparing the structure and content of programmes with the existing BSIT programme offered in Blanchardstown. Programmes examined included</p> <ol style="list-style-type: none"> 1. Business Information Systems (UCC) 2. Business Information Systems (SETU Waterford Campus) 3. Business Information Systems (Galway) 4. Business Information Technology Incl Professional Experience (Queens) 5. MSIS (TCD) <p>From this activity a number of themes emerged that inform our programme design. These included</p> <ul style="list-style-type: none"> • A work placement is an essential element of the proposed programme • Core Technical Skills in programming and data management are essential |

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| | <ul style="list-style-type: none"> • Process knowledge and business skills are equally essential <p>From our analysis and in-depth discussions with industry experts, a draft structure emerged encompassing all of these requirements. In collaboration with our industry partners the programme team further examined opportunities for differentiation (our USP). It soon became clear that the themes of user-centred artificial intelligence and sustainability offered the potential for hard-to-copy differentiation from competitor programmes.</p> <p>The industry panellists who informed our design were</p> <ul style="list-style-type: none"> • Dr Adrian Trenaman, Engineering Director, Google • Evan Long, SAP Enterprise Architect, FMC Corporation • Maeve Flangan, Director - Technology Consulting, EY • John Doran, Chief Technology Officer, Phorest Software • Ciaran Murphy, FMR • Alan Fahey, Senior Vocational Trainer, SAP • Fiona Gardiner, Head of Transformation, An Post • Will Foley, Director Solution Delivery, Novartis • Richard Walsh, EY • Phionah Kato, Snr Technical Analyst, Pinterest • Dr Karl O'Connell, Independent Consultant • Dr Claire Sheridan, Senior Solutions Architect, Amazon <p>The consensus from the panel was that the application of artificial intelligence to business which required both a comprehensive understanding of the underpinning models utilised by different AI solutions, and their application to different business contexts, rather than the programming and/or optimisation of artificial intelligence models, was a significant differentiator from existing BIS and Computer Science programmes.</p> <p>Working with this advice, the programme team refined the programme offering over a number of iterations to ensure the core industry requirements, the work placement, the USP elements, along with the requirements of the T-shaped student and the UEM were all incorporated in a logical, well-structured rational manner.</p> |
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Programme 1 (UCC)



Programme 2 (Galway)



Programme 3 (Queens)



Programme 4 (TU Dublin existing BSIT programme)

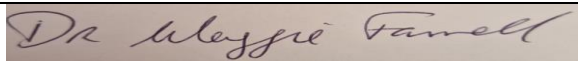


Programme 5 (TU Dublin BIS prototype programme)

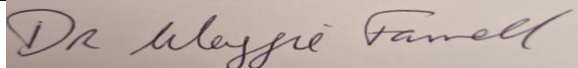


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| Other matters to be brought to the attention of Faculty Board and/or University Programmes Board |
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Section G - Approvals

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| Validation Report | |
| This report has been agreed by the Validation Panel and is signed on their behalf by the chairperson. | |
| Chairperson: Dr. Maggie Farrell |  |
| Signed: | Date: 14/1/2025 |

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| School Response | |
| The response to the conditions and recommendations has been agreed by the School and is signed by the Head of School. | |
| Head of School: Dr. Kevin Byrne | <i>Dr Kevin Byrne</i> |
| Signed: | Date: 07 /05/ 2025 |

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| Faculty Board | |
| The report and response have been approved by Faculty Board | |
| Vice-Dean for Education: Dr. Margaret Farrell |  |
| Signed: | Date: 09/05/2025 |

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| University Programmes Board (Programmes of 30 ECTS or greater) | |
| The report and response have been approved by the University Programmes Board | |
| Registrar: Dr. Mary Meaney | |
| Signed: | Date: Click or tap to enter a date. |

Shared Modules in new programme

| Year | Semester | Code | Module Title | Delivery Type | Credits | Shared Y/N |
|------|----------|------------|--|---------------|---------|------------|
| 1 | 1 | BSIT H1002 | Introduction to Programming | Mandatory | 5 | N |
| 1 | 1 | BSIT H1005 | Introduction to Requirements Analysis | Mandatory | 5 | N |
| 1 | 1 | BSIT H1012 | Business Maths & Statistics 1 | Mandatory | 5 | Y |
| 1 | 1 | BSST H1043 | Skills for Success in Higher Education | Mandatory | 5 | Y |
| 1 | 1 | BSST H1044 | Leading Modern Enterprises | Mandatory | 5 | Y |
| 1 | 2 | BSIT H1003 | Introduction to Web Design | Mandatory | 5 | Y |
| 1 | 2 | BSIT H1004 | Object Oriented Programming | Mandatory | 5 | N |
| 1 | 2 | BSIT H1006 | Introduction to Business Information Systems | Mandatory | 5 | Y |
| 1 | 2 | BSIT H1018 | Business Maths & Statistics 2 | Mandatory | 5 | Y |
| 1 | 2 | BSST H1042 | Exploring Modern Enterprises | Mandatory | 5 | N |
| 1 | 1 & 2 | BSST H1041 | Accounting | Mandatory | 10 | Y |
| 2 | 1 | BSIT H2003 | UX Design | Mandatory | 5 | N |
| 2 | 1 | BSIT H2006 | Server-Side Web Programming | Mandatory | 5 | N |
| 2 | 1 | BSIT H2007 | Business Information Systems Operations | Mandatory | 5 | N |
| 2 | 1 | BSST H2014 | Principles of Marketing | Mandatory | 5 | Y |
| 2 | 1 | DATA H2002 | Database Management and Design | Mandatory | 5 | N |
| 2 | 1 | PRJM2003 | Project Management | Mandatory | 5 | Y |
| 2 | 2 | ACCT 2009 | Finance | Mandatory | 5 | Y |
| 2 | 2 | BSIT H2002 | Business Modelling and Simulation | Mandatory | 5 | N |

| Year | Semester | Code | Module Title | Delivery Type | Credits | Shared Y/N |
|------|----------|------------|---|---------------|---------|------------|
| 2 | 2 | BSIT H2008 | Design Thinking in Technology | Mandatory | 5 | N |
| 2 | 2 | DATA H2004 | Enterprise Databases | Mandatory | 5 | N |
| 2 | 2 | MNGT H2011 | Digital Product Management | Mandatory | 5 | N |
| 2 | 2 | PROG H2000 | Web Framework Programming | Mandatory | 5 | N |
| 3 | 1 | BSIT H3002 | Mobile Applications Development | Mandatory | 5 | N |
| 3 | 1 | BSIT H3003 | Introduction to Business Intelligence | Mandatory | 5 | N |
| 3 | 1 | BSIT H3012 | Object Oriented Analysis & Design | Mandatory | 5 | N |
| 3 | 1 | DATA H3012 | Data Visualisation and Storytelling | Mandatory | 5 | N |
| 3 | 1 | INFS 3028 | Software Quality Assurance | Mandatory | 5 | N |
| 3 | 1 | MNGT H3031 | Agile Project Management for Developers | Mandatory | 5 | N |
| 3 | 2 | SLAB 3001 | Start Up Lab | Elective | 30 | Y |
| 3 | 2 | WKPL 3008 | Work Placement | Elective | 30 | Y |
| 4 | 1 | ACFN H4023 | Business Strategy | Mandatory | 5 | Y |
| 4 | 1 | BSIT H4001 | Advanced Business Intelligence | Mandatory | 5 | N |
| 4 | 1 | BSIT H4024 | IT Project 1 - Analysis and Design | Mandatory | 10 | N |
| 4 | 1 | ETHC H4002 | Governance & Ethics in IS and AI | Mandatory | 5 | N |
| 4 | 1 | SUST H4000 | Digital Innovation for Sustainability | Mandatory | 5 | N |
| 4 | 2 | BSIT H4018 | Information Systems Strategy | Mandatory | 5 | Y |
| 4 | 2 | BSIT H4025 | IT Project 2 - Implementation | Mandatory | 10 | N |
| 4 | 2 | LEAD H4003 | Leadership & Emotional Intelligence | Mandatory | 5 | N |

| Year | Semester | Code | Module Title | Delivery Type | Credits | Shared Y/N |
|------|----------|------------|---|---------------|---------|------------|
| 4 | 2 | STRA H4004 | Large Language Models: Strategies and Practices in Business | Mandatory | 5 | N |
| 4 | 2 | TECH4007 | Emerging Technology & Organisation Change | Mandatory | 5 | N |