

**QQI**Quality and Qualifications Ireland
Dearbhú Cáilíochta agus Cáilíochtaí Éireann

Independent Evaluation Report on an Application for Validation of a Programme of Education and Training

Part 1. Provider details

Provider name	Dublin Business School
Date of site visit	13 Aug 2020
Date of report	31 August 2020

Section A. Overall recommendations

Principal programme 1	Title	Master of Science in Financial Analytics
	Award	Master of Science
	Credit	90
	Recommendation Satisfactory OR Satisfactory subject to proposed conditions OR Not Satisfactory	Satisfactory subject to proposed conditions set out.
Embedded programme & Principal Programme 2	Title	Postgraduate Diploma in Science in Financial Analytics
	Award	Postgraduate Diploma in Science
	Credit	60
	Recommendation Satisfactory OR Satisfactory subject to proposed conditions OR Not Satisfactory	Satisfactory subject to proposed conditions set out.

Section B. Expert Panel

Name	Role	Affiliation
Karen Jones	Chair	National College of Ireland
Mary Jennings	Secretary	Independent Consultant
Konstantinos Gavriilidis	Subject Matter Expert	University of Stirling
Eoin Geoghegan	Learner Representative	TU Dublin
Michael Hannon	QA Expert	Galway Mayo IT
Marie O'Brien	Subject Matter Expert	A&L Goodbody
Tim O'Connell	Industry Representative	Grant Thornton

Section C. MSc Financial Analytics

Names of centre(s) where the programme(s) is to be provided	Maximum number of learners (FT)	Maximum number of learners (PT)
Dublin Business School	90	90

Proposed Duration and Enrolment MSc					
	First Intake Date	Duration	Intakes per Annum	Enrolment i.e. learners per Intake	
			Maximum	Minimum	Maximum
Full-Time	October 2020	1 year	3	5	30
Part-Time	October 2020	2 years	3	5	30
Intake Schedule e.g. January September					

Section D. PGDip Financial Analytics

Names of centre(s) where the programme(s) is to be provided	Maximum number of learners (FT)	Maximum number of learners (PT)
Dublin Business School	60	30

Proposed Duration and Enrolment					
	First Intake Date	Duration	Intakes per Annum	Enrolment i.e. learners per Intake	
			Maximum	Minimum	Maximum
Full-Time	October 2020	1 year	2	5	30
Part-Time	October 2020	12-18 months	2	5	15

Panel Commentary on proposed enrolment:

The panel noted the timing proposed for the first intake (Sept 2020) will not be met given the delay in the revalidation process to accommodate COVID-19 restrictions. The first intake date will need to be amended to another point in Semester 1 2020/21 or Jan/Feb 2021 following the programme being formally validated by QQI.

The panel suggests that DBS review how the minimum and maximum numbers are recorded to ensure consistency across all documentation. In particular, the panel suggests checking the way the numbers in section 3.13 and Section 1.2.1 are presented.

Brief synopsis of the programme (e.g. who it is for, what is it for, what is involved for learners, what it leads to.)

The Master's has been designed to meet the growing need for financial professionals with the practical skills required for a rapidly evolving data driven financial function. In this programme, graduates will understand the core principles of finance, be equipped to utilise data analytics, machine learning, and visualisation tools, apply the appropriate financial analytic models, and acquire enhanced understanding of business decision making in an ethical and cyber context. This programme provide knowledge and skills in the area of predictive financial modelling, applied financial analytics, financial risk management, behavioural economics and finance, financial decision-making, data analytics and machine learning, intelligence and visualisation as well as information and cybersecurity management. The programme aims to incorporate practical skills in each module for the professional development of learners to enhance their employability options. This will enable learners to integrate seamlessly into any commercial enterprise by demonstrating analytical ability, curiosity, resilience, leadership, self-management, teamwork and effective communication skills. Semester two also comprises an Applied Research Methods module, which focuses on research and development skills. This module will inform the learner's Applied Research Project in Semester three (FT). The Masters is a 1 year full-time, 18 months part-time programme of three 10 ECTS and seven 5 ECTS taught modules, and a 25 ECTS Applied Research Project.

The Postgraduate Diploma in Science in Financial Analytics has been designed to meet the growing need for financial professionals with the practical skills required for a rapidly evolving data driven financial function. In this programme, graduates will understand the core principles of finance, be equipped to utilise data analytics, machine learning, and visualisation tools, apply the appropriate financial analytic models, and acquire enhanced understanding of business decision making in an ethical and cyber context. This programme provide knowledge and skills in the area of predictive financial modelling, applied financial analytics, financial risk management, behavioural economics and finance, financial decision-making, data analytics and machine learning, intelligence and visualisation as well as information and cybersecurity management. The programme aims to incorporate practical skills in each module for the professional development of learners to enhance their employability options. This will enable learners to integrate seamlessly into any commercial enterprise by demonstrating analytical ability, curiosity, resilience, leadership, self-management, teamwork and effective communication skills.

Target learner groups

The Master of Science in Financial Analytics programme is aimed at learners with a minimum second-class second-division (2.2) Level 8 honours bachelor's degree or Higher Diploma in a cognate area who wish to specialise in the field of financial analytics with a view to entering industry. Cognate subjects include finance, business, accountancy, computing, information systems, engineering, general science, mathematics, statistics, data analytics or related discipline. Learners with a minimum second class, second division (2.2) Level 8 honours bachelor's degree in a non-cognate area plus 3–5 years' professional experience in a related field and who require a qualification in this area in order to progress professionally, may also find this programme of interest. Learners can also access this programme through RPL. Such applicants will be assessed on a case by case basis. On completion of this programme, learners will have the financial analytics expertise to operate at a professional level and effectively integrate their skills into decision-making in their company. Through the Applied Research Project, learners will develop independent research and problem-solving skills which will be valuable in a variety of contexts in the workplace.

The Postgraduate Diploma in Financial Analytics programme is aimed at learners with a minimum second-class second-division (2.2) Level 8 honours bachelor's degree or Higher Diploma in a cognate area who wish to specialise in the field of financial analytics with a view to entering industry. Cognate subjects include finance, business, accountancy, computing, information systems, engineering, general science, mathematics, statistics, data analytics or related discipline. Learners with a minimum second class, second division (2.2) Level 8 honours bachelor's degree in a non-cognate area plus 3–5 years' professional experience in a related field and who require a qualification in this area in order to progress professionally, may also find this programme of interest. Learners can also access this programme through RPL. Such applicants will be assessed on a case by case basis. On completion of this programme, learners will have the financial analytics expertise to operate at a professional level and effectively integrate their skills into decision-making in their company. Through the Applied Research Project, learners will develop independent research and problem-solving skills which will be valuable in a variety of contexts in the workplace.

Approved countries for provision	Ireland
Delivery mode: Full-time/Part-time	Full-time and part-time

The teaching and learning modalities

- Classroom lectures
- Case-based learning
- Practical skills sessions
- Workshops
- Tutorials
- Individual and group work ● Online synchronous and asynchronous classes

Summary of specifications for teaching staff

Role	Profile	WTE
Lecturer	Lecturing staff will have a minimum of a Level 9 Postgraduate Diploma or Masters and/or PhD in the following areas: Mathematics, Statistics, Finance, Computer Science, Software Development, Information Systems, Data Analytics, Programming, Financial Technology, etc. In modules where industry experience is desirable, holders of Level 8 honours degrees in the above disciplines, who are exceptionally qualified by virtue of significant senior industry experience may also be considered.	7

Learning Activity	Ratio of learners to teaching staff
Lecture classroom-based sessions	1:60
Online class (broadcast live)	1:50
Online tutorial (interactive)	1:25

Practical lab sessions	1:35
Workshops	1:25

Panel Commentary on programme outline and staffing:

Programmes being replaced (applicable to applications for revalidation)		
Code	Title	Last enrolment date
N/A	N/A	N/A

Section E. Other noteworthy features of the application

Part 1A Evaluation of the Case for an Extension of the Approved Scope of Provision (where applicable). Having examined appropriate QA / Governance procedures, comment on the case for extending the applicant’s Approved Scope of Provision to enable provision of this programme. (Especially relevant for move to online delivery / assessment)

N/A

Part 2. Evaluation against the validation criteria

Criterion 1: The provider is eligible to apply for validation of the programme

a) The provider meets the prerequisites (section 44(7) of the 2012 Act) to apply for validation of the programme. b) The application for validation is signed by the provider's chief executive (or equivalent) who confirms that the information provided is truthful and that all the applicable criteria have been addressed. c) The provider has declared that their programme complies with applicable statutory, regulatory and professional body requirements. ¹		
Programme	Satisfactory? (yes, no, partially)	Comment
Master of Science in Financial Analytics	Yes	
Postgraduate Diploma in Science in Financial Analytics	Yes	

As an established provider of higher education programmes DBS has met the prerequisites (section 44(7) of the 2012 Act) to apply for validation of this programme. It was noted that DBS has in place procedures for access, transfer and progression as set out in Section 4 of the Programme Document. DBS has also established arrangements for the Protection of Enrolled Learners (PEL) which have been approved by QQI.

DBS provided the panel with a copy of the letter to be submitted to QQI with the application for the validation of the programme. The letter contained the signature and declaration required under sub-criteria 1b) and 1c).

¹This criterion is to ensure the programme can actually be provided and will not be halted on account of breach of the law. The declaration is sought to ensure this is not overlooked but QQI is not responsible for verifying this declaration of enforcing such requirements.

Criteria 2. The programme objectives and outcomes are clear and consistent with the QQI awards sought

<ul style="list-style-type: none"> a) The programme aims and objectives are expressed plainly. b) A QQI award is specified for those who complete the programme. <ul style="list-style-type: none"> (i) Where applicable, a QQI award is specified for each embedded programme. c) There is a satisfactory rationale for the choice of QQI award(s). d) The award title(s) is consistent with unit 3.1 of QQI's <i>Policy and Criteria for Making Awards</i>. e) The award title(s) is otherwise legitimate for example it must comply with applicable statutory, regulatory and professional body requirements. f) The programme title and any embedded programme titles are <ul style="list-style-type: none"> (i) Consistent with the title of the QQI award sought. (ii) Clear, accurate, succinct and fit for the purpose of informing prospective learners and other stakeholders. g) For each programme and embedded programme <ul style="list-style-type: none"> (i) The minimum intended programme learning outcomes and any other educational or training objectives of the programme are explicitly specified.² (ii) The minimum intended programme learning outcomes to qualify for the QQI award sought are consistent with the relevant QQI awards standards. h) Where applicable, the minimum intended module learning outcomes are explicitly specified for each of the programme's modules. i) Any QQI minor awards sought for those who complete the modules are specified, where applicable. <p>For each minor award specified, the minimum intended module learning outcomes to qualify for the award are consistent with relevant QQI minor awards standards.³</p>

Programme	Satisfactory? (yes, no, partially)	Comment
Master of Science in Financial Analytics	Yes	
Postgraduate Diploma in Science in Financial Analytics	Partially	See special condition for this criterion below.

The panel found that the aims, objectives and rationale for the programmes were expressed clearly, as set out in Section 2.1 of the Programme Document.

It was concluded that the programme and module learning outcomes have been clearly outlined and were appropriate to the level of the awards. The title of the programme was deemed to be appropriate and in line with the QQI standard for the award type on the NFAQ.

The panel observed that the minimum intended programme learning outcomes for the Masters of Science in Financial Analytics were informed by the QQI Science Awards Standards and have been mapped against these standards.

The panel noted that there is an exit award of a Postgraduate Diploma in Science in Financial Analytics available to learners who, for whatever reason, are unable to complete the Masters programme. The panel deemed that this was appropriate.

² Other programme objectives, for example, may be to meet the educational or training requirements of a statutory, regulatory or professional body.

³ Not all modules will warrant minor awards. Minor awards feature strongly in the QQI common awards system however further education and training awards may be made outside this system.

The panel also noted that the Postgraduate Diploma is to be offered as a stand-alone award and is satisfied with this proposed development.

The panel observed that the minimum intended programme learning outcomes for the Postgraduate Diploma in Financial Analytics were informed by the QQI Science Awards Standards and have been mapped against these standards. It is noted that in the documentation provided in relation to this award that there are cross references to the Masters in Financial Analytics which are not relevant to this award or programme and it is a condition that the documentation be amended accordingly.

Condition:

It is a condition for the stand alone PGDip that DBS finalise the programme documentation to remove cross-references to the MSc programme document for use as a stand-alone document.

Criteria 3. The programme concept, implementation strategy, and its interpretation of QQI awards standards are well informed and soundly based (considering social, cultural, educational, professional and employment objectives)

<p>a) The development of the programme and the intended programme learning outcomes has sought out and taken into account the views of stakeholders such as learners, graduates, teachers, lecturers, education and training institutions, employers, statutory bodies, regulatory bodies, the international scientific and academic communities, professional bodies and equivalent associations, trades unions, and social and community representatives.⁴</p> <p>b) The interpretation of awards standards has been adequately informed and researched; considering the programme aims and objectives and minimum intended programme (and, where applicable, modular) learning outcomes.</p> <p>(i) There is a satisfactory rationale for providing the programme.</p> <p>(ii) The proposed programme compares favourably with existing related (comparable) programmes in Ireland and beyond. Comparators should be as close as it is possible to find.</p> <p>(iii) There is support for the introduction of the programme (such as from employers, or professional, regulatory or statutory bodies).</p> <p>(iv) There is evidence⁵ of learner demand for the programme.</p> <p>(v) There is evidence of employment opportunities for graduates where relevant⁶.</p> <p>(vi) The programme meets genuine education and training needs.⁷</p> <p>c) There are mechanisms to keep the programme updated in consultation with internal and external stakeholders.</p> <p>d) Employers and practitioners in the cases of vocational and professional awards have been systematically involved in the programme design where the programme is vocationally or professionally oriented.</p> <p>e) The programme satisfies any validation-related criteria attaching to the applicable awards standards and QQI awards specifications.</p>		
Programme	Satisfactory? (yes, no, partially)	Comment
Master of Science in Financial Analytics	Yes	
Postgraduate Diploma in Science in Financial Analytics	Yes	

Overall, the panel was satisfied that the proposed programmes are soundly based, with adequate consideration given to evolving trends in the finance and fintech sectors, with a growth in the deployment of financial analytics across the board.

The panel was informed that, in line with its overall strategy to produce employment-ready graduates, DBS has forged strong links with industry through its sectoral industry panels and industry representation on its Academic Board, as well as with its learners and graduates. These mechanisms provide a means to inform the development and evolution of programmes that met a need, including the needs identified in the financial services sector, particularly in the area of data analytics. This branch of finance had increased substantially over the past 4-5 years, the panel was informed, with skills in the capacity to break down and visually present data increasingly in demand.

⁴ Awards standards however detailed rely on various communities for their interpretation. This consultation is necessary if the programme is to enable learners to achieve the standard in its fullest sense.

⁵ This might be predictive or indirect.

⁶ It is essential to involve employers in the programme development and review process when the programme is vocationally or professionally oriented.

⁷ There is clear evidence that the programme meets the **target learners'** education and training needs and that there is a clear demand for the programme.

It was noted that one cohort being targeted for the proposed programmes is professionals and graduates in accounting and finance who wish to upskill in this area.

The panel is satisfied that DBS has undertaken a comprehensive consultation with stakeholders in the development of the proposed programmes and recommends that it continue this engagement with a view to having the proposed programmes recognised as a professional qualification with bodies such as the Data Analytic Institute.

Recommendation

It is recommended that DBS continue discussions with professional bodies to aid the recognition and competitiveness of the programme and its graduates against professional body membership.

Criterion 4. The programme's access, transfer and progression arrangements are satisfactory

<p>a) The information about the programme as well as its procedures for access, transfer and progression are consistent with the procedures described in QQI's policy and criteria for access, transfer and progression in relation to learners for providers of further and higher education and training. Each of its programme-specific criteria is individually and explicitly satisfied⁸.</p> <p>b) Programme information for learners is provided in plain language. This details what the programme expects of learners and what learners can expect of the programme and that there are procedures to ensure its availability in a range of accessible formats.</p> <p>c) If the programme leads to a higher education and training award and its duration is designed for native English speakers, then the level of proficiency in English language must be greater or equal to B2+ in the Common European Framework of Reference for Languages (CEFR⁹) in order to enable learners to reach the required standard for the QQI award.</p> <p>d) The programme specifies the learning (knowledge, skill and competence) that target learners are expected to have achieved before they are enrolled in the programme and any other assumptions about enrolled learners (programme participants).</p> <p>e) The programme includes suitable procedures and criteria for the recognition of prior learning for the purposes of access and, where appropriate, for advanced entry to the programme and for exemptions.</p> <p>f) The programme title (the title used to refer to the programme):-</p> <ul style="list-style-type: none"> (i) Reflects the core <i>intended programme learning outcomes</i>, and is consistent with the standards and purposes of the QQI awards to which it leads, the award title(s) and their class(es). (ii) Is learner focused and meaningful to the learners; (iii) Has long-lasting significance. <p>g) The programme title is otherwise legitimate; for example, it must comply with applicable statutory, regulatory and professional body requirements.</p>		
Programme	Satisfactory? (yes, no, partially)	Comment
Master of Science in Financial Analytics	Yes	
Postgraduate Diploma in Science in Financial Analytics	Partially	See special condition for this criterion below.

Overall, the Panel was satisfied that the access, transfer and progression arrangements for the Masters Programme are appropriate. Information on access, transfer and progression is available through DBS website, promotional material and the Student Handbooks. This includes information on EU and non-EU entry requirements and information for students with disabilities.

It was stated that there is no advanced entry onto the Master's Programme. The panel was informed that most learners who enrol on the Master of Science in Financial Analytics complete the programme. It was stated that a small number of learners may decide, either for their own personal reasons or in consultation with the Course Director and the Student Engagement Team, not to complete the applied research project which carries 30 ECTS. Those who have successfully completed that portion of the programme carrying 60 ECTS may be awarded a Postgraduate

⁸ Each of the detailed criteria set out in the Policy and criteria for access, transfer and progression in relation to learners for providers of further and higher education and training must be addressed in the provider's evaluation report. The detailed criteria are (QQI, restated 2015) arranged under the headings

- Progression and transfer routes
- Entry arrangements
- Information provision

⁹ http://www.coe.int/t/dg4/linguistic/Source/Framework_EN.pdf (accessed 26/09/2015)

Diploma in Science in Financial Analytics as an exit award. The panel is satisfied that this is appropriate and welcomes the fact that learners can receive the exit award in these circumstances.

Overall, the Panel was satisfied that the programmes' access, transfer and progression arrangements are appropriate for the PGDip programme. However, it was noted that, in the documentation, there was not sufficient clarity on the progression arrangements between the Postgraduate Diploma and the MSc Programme for those wishing to progress to Level 9. It was stated that there is no advanced entry onto the Master's Programme. Currently, it would appear that holders of the Postgraduate Diploma may apply to transfer to the Master's Programme only if they relinquish the Diploma as they cannot hold two awards for the same programme of study. The panel noted that the process for making such a transfer needs further clarification in the documentation and it is a condition of validation that this be done.

Condition

It is a condition that DBS clarify within the documentation on the progression arrangements between the Postgraduate Diploma and the Masters in Science programmes.

Criterion 5: The programme’s written curriculum is well structured and fit-for-purpose

<p>a) The programme is suitably structured and coherently oriented towards the achievement by learners of its intended programme learning outcomes. The programme (including any stages and modules) is integrated in all its dimensions.</p> <p>b) In so far as it is feasible the programme provides choice to enrolled learners so that they may align their learning opportunities towards their individual educational and training needs.</p> <p>c) Each module and stage is suitably structured and coherently oriented towards the achievement by learners of the intended <i>programme</i> learning outcomes.</p> <p>d) The objectives and purposes of each of the programme’s elements are clear to learners and to the provider’s staff.</p> <p>e) The programme is structured and scheduled realistically based on sound educational and training principles¹⁰.</p> <p>f) The curriculum is comprehensively and systematically documented.</p> <p>g) The credit allocated to the programme is consistent with the difference between the entry standard and minimum intended programme learning outcomes.</p> <p>h) The credit allocated to each module is consistent with the difference between the module entry standard and minimum intended module learning outcomes.</p> <p>i) Elements such as practice placement and work-based phases are provided with the same rigour and attentiveness as other elements.</p> <p>j) The programme duration (expressed in terms of time from initial enrolment to completion) and its fulltime equivalent contact time (expressed in hours) are consistent with the difference between the minimum entry standard and award standard and with the credit allocation.¹¹</p>		
Programme	Satisfactory? (yes, no, partially)	Comment
Master of Science in Financial Analytics	Partially	See Condition in relation to clarification needed in document in relation to scope of research methods, research project and supervision
Postgraduate Diploma in Science in Financial Analytics	Yes	

In general, the panel found that the written curriculum was well structured and fit for purpose, with one special condition as set out below in more detail.

The panel made specific observations and recommendations on the content of some of the modules with a view to enhancing the applied nature of the programme and the work-readiness of the learners. They are outlined below. The general point was made that in relation to reading lists, DBS to ensure that these include up to date information on data ethics and data control in the appropriate modules where these topics are covered.

Module 1: Principles of Financial Decision Making

No specific comments.

Module 2: Data Analytics & Machine Learning for Finance

Consider having the introduction to programming in this module and then go deeper into the topic in other modules.

¹⁰ This applies recursively to each and every element of the programme from enrolment through to completion.

In the case of a modular programme, the pool of modules and learning pathway constraints (such as any prerequisite and co-requisite modules) is explicit and appropriate to the intended programme learning outcomes.

¹¹ If the duration is variable, for example, when advanced entry is available, this should be explained and justified

Module 4: Financial Intelligence and Data Visualisation

Consider a more technical emphasis in the assessment strategy for this module, rather than an essay. Cover the topic of algorithms in terms of an understanding of steps and processes involved, rather than coding per se.

Modules 5, 6, and 7: Information and Cybersecurity Management; Financial Risk Management; Behavioural Economics and Finance

Ensure that the topic of data governance and data controls are embedded in the content of these modules.

Module 8: Behavioural Economics and Finance

Include not just the theory on behavioural science but include a practical element such as how the science is used in real life situations.

MSc Only - Module 9: Innovation in Financial Technology

Ensure that the concept of 'agile' is covered in this module as it is emerging as a process to speed up development and as an alternative to the 'waterfall' methodology. It was noted that 'agile' is also an organisational concept, not only a software methodology. It was suggested to use case studies, scenarios and other applied learning as well as grounding in theory.

MSc Only - Module 10: Applied Research Methods and Module 11 Applied Research

The panel found that the synergy between these modules on research methods and applied research project was not sufficiently evident in the documentation. The DBS team indicated that, in practice, there was greater synergy that may have been apparent in that, for instance, in the module on research methods, learners could begin preparation for their own particular research project and associated research method.

The panel found that there was not sufficient clarity around what constituted the scope of an 'artefact' as the output of the applied research and whether, for instance, this included producing a dissertation. The panel also found that further clarity was needed around the level of supervision provided to learners. For instance, it was not clear in the documentation whether the supervision hours applied to individuals or to a cohort undertaking a group project.

DBS stated that the modules were separately assessed and this approach provided an opportunity for learners to gain knowledge in a range of research methods for use in work situations and to gain credits for each one as appropriate. They indicated that there was a danger of double assessment if the two modules were conflated.

Condition

Overall, it is a condition that DBS clarify the supervision, scope and structure of Modules 10 and 11 (Applied Research Methods and Research Project).

The panel noted that, in the documentation to be provided to learners, it was not always clear what programming languages, software and databases were to be used on the proposed programme. The panel made the following recommendation in relation to this point.

Recommendation

It is recommended that DBS review the documentation to be more explicit at a programme and module level of the languages, software and databases to be used on the programme to manage learner expectations.

Criterion 6: There are sufficient qualified and capable programme staff available to implement the programme as planned

<p>a) The specification of the programme’s staffing requirements (staff required as part of the programme and intrinsic to it) is precise, and rigorous and consistent with the programme and its defined purpose. The specifications include professional and educational qualifications, licences-to practise where applicable, experience and the staff/learner ratio requirements. See also criterion 12 c).</p> <p>b) The programme has an identified complement of staff¹² (or potential staff) who are available, qualified and capable to provide the specified programme in the context of their existing commitments.</p> <p>c) The programme's complement of staff (or potential staff) (those who support learning including any employer-based personnel) are demonstrated to be competent to enable learners to achieve the intended programme learning outcomes and to assess learners’ achievements as required.</p> <p>d) There are arrangements for the performance of the programme’s staff to be managed to ensure continuing capability to fulfil their roles and there are staff development¹³ opportunities¹⁴.</p> <p>e) There are arrangements for programme staff performance to be reviewed and there are mechanisms for encouraging development and for addressing underperformance.</p> <p>f) Where the programme is to be provided by staff not already in post there are arrangements to ensure that the programme will not enrol learners unless a complement of staff meeting the specifications is in post.</p>		
Programme	Satisfactory? (yes, no, partially)	Comment
Master of Science in Financial Analytics	Yes	
Postgraduate Diploma in Science in Financial Analytics	Partially	The panel noted that while the text in this section in the MSc document was satisfactory, incomplete content was presented to the panel in in the specific Postgraduate Diploma Programme Document

It is a condition that DBS complete the programme documentation and remove cross-reference to the MSc programme document to create a stand-alone document for the Postgraduate Diploma.

The panel was advised that teaching staff are qualified to a minimum of NFQ Level 9 with many qualified to doctoral level or enrolled in doctoral studies. CVs of teaching staff were provided in the documentation provided to the panel.

The panel was informed that DBS had taken steps to increase its overall teaching capacity during the current pandemic. Specifically, DBS had provided training for both full-time and part-time staff in how best to deliver a mix of on-line/off-line and in-person approaches to take account of the social-distance guidelines provided to the third level education sector by the Department of Education.

¹² Staff here means natural persons required as part of the programme and accountable (directly or indirectly) to the programme’s provider, it may for example, include contracted trainers and workplace supervisors.

¹³ Development here is for the purpose of ensuring staff remain up-to-date on the discipline itself, on teaching methods or on other relevant skills or knowledge, to the extent that this is necessary to ensure an adequate standard of teaching.

¹⁴ Professional or vocational education and training requires that teaching staff’s professional/vocation knowledge is up to date. Being qualified in a discipline does not necessarily mean that a person is currently competent in that discipline. Therefore, performance management and development of professional and vocational staff needs to focus on professional/vocational competence as well as pedagogical competence. Professional development may include placement in industry, for example. In regulated professions it would be expected that there are a suitable number of registered practitioners involved.

The panel requested that the CV for a specific lecturer be added to the documentation provided and to clarify which modules another lecturer is teaching on.

Criterion 7: There are sufficient physical resources to implement the programme as planned

<p>a) The specification of the programme’s physical resource requirements (physical resources required as part of the programme and intrinsic to it) is precise, and rigorous and consistent with the programme, its defined purpose and its resource/learner-ratio requirements. See also criterion 12 d).</p> <p>b) The programme has an identified complement of supported physical resources (or potential supported physical resources) that are available in the context of existing commitments on these e.g. availability of:</p> <ul style="list-style-type: none"> (i) suitable premises and accommodation for the learning and human needs (comfort, safety, health, wellbeing) of learners (this applies to all of the programme’s learning environments including the workplace learning environment) (ii) suitable information technology and resources (including educational technology and any virtual learning environments provided) (iii) printed and electronic material (including software) for teaching, learning and assessment (iv) suitable specialist equipment (e.g. kitchen, laboratory, workshop, studio) – if applicable (v) technical support (vi) administrative support (vii) company placements/internships – if applicable <p>c) If versions of the programme are provided in parallel at more than one location each independently meets the location-sensitive validation criteria for each location (for example staffing, resources and the learning environment).</p> <p>d) There is a five-year plan for the programme. It should address</p> <ul style="list-style-type: none"> (i) Planned intake (first five years) and (ii) The total costs and income over the five years based on the planned intake. <p>e) The programme includes controls to ensure entitlement to use the property (including intellectual property, premises, materials and equipment) required.</p>		
Programme	Satisfactory? (yes, no, partially)	Comment
Master of Science in Financial Analytics	Yes	
Postgraduate Diploma in Science in Financial Analytics	Partially	The text in the documentation for the MSc was satisfactory, but incomplete content was presented within the specific Programme Document on the Postgraduate Diploma presented to the panel. It is a condition that the cross-references are removed to create a stand-alone document for the Postgraduate Diploma.

It is a condition that DBS complete the programme documentation and remove cross-reference to the MSc programme document to create a stand-alone document for the Postgraduate Diploma.

The panel is satisfied that there are sufficient physical resources to implement the programme as planned.

As the review by the panel took place via Microsoft Teams platform the panel was informed by the DBS team on the library facilities, classroom and study facilities and technology services. The panel was informed that DBS Library comprises a physical library at Aungier Street and an extensive online library which is accessible via the Library Website (<http://library.dbs.ie/>).

The panel was informed that there had been a reallocation of the library budget in favour of the procurement of additional e-books and other publications to cater for the blended learning

approach and to facilitate learners who, because of social distancing guidelines, may not have access to the physical library as easily. Additional services, such as having a 'click and collect' service for physical books/periodicals/journals had been put in place for learners as a means of making the library facilities more accessible.

As a result of recent investment in the physical infrastructure, additional technology-enhanced study places recently became available to learners. These will be available in line with social distancing guidelines to both full-time and part-time learners. The panel noted that DBS intends to continue with its investment in its physical infrastructure over the coming years, in addition to the resources being made available for blended learning during the current situation with COVID-19.

The panel was informed that Computer Services department provides IT support for all technology-based services throughout the college, supporting learners both on and off-campus and supporting staff to deliver a blended learning format. The panel was informed that DBS had increased both its capacity and flexibility in relation to the supply of technology, including additional mobile labs, virtual desktops for learners via the learner's own computer for instance. As technology is likely to play an increasing role in facilitating learning in the future, it is understood that DBS keeps this service under regular review.

Criterion 8: The learning environment is consistent with the needs of the programme’s learners

<p>a) The programme’s physical, social, cultural and intellectual environment (recognising that the environment may, for example, be partly virtual or involve the workplace) including resources and support systems are consistent with the intended programme learning outcomes.</p> <p>b) Learners can interact with, and are supported by, others in the programme’s learning environments including peer learners, teachers, and where applicable supervisors, practitioners and mentors.</p> <p>c) The programme includes arrangements to ensure that the parts of the programme that occur in the workplace are subject to the same rigours as any other part of the programme while having regard to the different nature of the workplace.</p>		
Programme	Satisfactory? (yes, no, partially)	Comment
Master of Science in Financial Analytics	Yes	
Postgraduate Diploma in Science in Financial Analytics	Partially	The text in the documentation for the MSs was satisfactory, but incomplete content was presented within the specific Programme Document on the Postgraduate Diploma presented to the panel. It is a condition that the cross-references are removed to create a stand-alone document for the Postgraduate Diploma.

It is a condition that DBS complete the programme documentation and remove cross-reference to the MSc programme document to create as a stand-alone document for the Postgraduate Diploma.

The panel was informed that there are mechanisms in place to ensure that learners have the appropriate level of learner supports in the current environment, involving more delivery online with more restricted numbers on campus due to social distancing requirements. Contingency planning for the new academic year foresees a proposed induction to online learning as the new term begins, provision of access to appropriate software and the recording of classes and additional library services. See also Criterion 7 above.

The panel was informed that learners who, for whatever reason, are not in a position to learn online will have access to the premises as much as possible. The panel was informed that, while DBS does not receive grants from government agencies to provide appropriate facilities for people with disabilities, nevertheless it makes every effort to accommodate people with disabilities.

The panel found that the Student Handbook had clear information provided for learners.

Criterion 9: There are sound teaching and learning strategies

<p>a) The teaching strategies support achievement of the intended programme/module learning outcomes.</p> <p>b) The programme provides authentic learning opportunities to enable learners to achieve the intended programme learning outcomes.</p> <p>c) The programme enables enrolled learners to attain (if reasonably diligent) the minimum intended programme learning outcomes reliably and efficiently (in terms of overall learner effort and a reasonably balanced workload).</p> <p>d) Learning is monitored/supervised.</p> <p>e) Individualised guidance, support¹⁵ and timely formative feedback is regularly provided to enrolled learners as they progress within the programme.</p>		
Programme	Satisfactory? (yes, no, partially)	Comment
Master of Science in Financial Analytics	Yes	
Postgraduate Diploma in Science in Financial Analytics	Yes	

In general, the panel is satisfied that there are sound teaching and learning strategies in place to deliver the programmes as proposed.

The panel was informed that there was a mix of teaching strategies from a traditional lecture/tutorial approach dealing with technical aspects of finance and analytics to use of the concept of the ‘flipped classroom’ whereby learners were asked to first explore an aspect of a given topic, to present what they had learned to their peers and faculty and to use this as the starting point to acquire more knowledge and skills. The panel was informed that this approach not only developed the capacity for self-directed and applied learning and research skills, but also skills such as communication and teamwork. It was noted that this mix of skills are both required and prized by employers. The panel is satisfied that these are appropriate teaching and learning strategies.

The Programme Team advised the panel that the whole area of technology-enhanced, blended learning was changing, with disruption caused by Covid-19 pandemic accelerating a process already in train. Examples provided to the panel included the more interactive use of MOODLE to both enhance student engagement and promote more independent learning, whereby activities and resources are well scaffolded through in-class learning and continued on MOODLE.

¹⁵ Support and feedback concerns anything material to learning in the context of the programme. For the avoidance of doubt it includes among other things any course-related language, literacy and numeracy support.

Criterion 10: There are sound assessment strategies

<p>a) All assessment is undertaken consistently with <i>Assessment Guidelines, Conventions and Protocols for Programmes Leading to QQI Awards</i>¹⁶</p> <p>b) The programme's assessment procedures interface effectively with the provider's QQI approved quality assurance procedures.</p> <p>c) The programme includes specific procedures that are fair and consistent for the assessment of enrolled learners to ensure the minimum intended programme/module learning outcomes are acquired by all who successfully complete the programme.¹⁷</p> <p>d) The programme includes formative assessment to support learning.</p> <p>e) There is a satisfactory written programme assessment strategy for the programme as a whole and there are satisfactory module assessment strategies for any of its constituent modules.¹⁸</p> <p>f) Sample assessment instruments, tasks, marking schemes and related evidence have been provided for each award-stage assessment and indicate that the assessment is likely to be valid and reliable.</p> <p>g) There are sound procedures for the moderation of summative assessment results.</p> <p>h) The provider only puts forward an enrolled learner for certification for a particular award for which a programme has been validated if they have been specifically assessed against the standard for that award.¹⁹</p>		
Programme	Satisfactory? (yes, no, partially)	Comment
Master of Science in Financial Analytics	Yes	
Postgraduate Diploma in Science in Financial Analytics	Yes	

In general, the panel is satisfied that there are sound assessment strategies in place. The panel made some suggestions in relation to ensuring that assessments covered both applied practical aspects of particular topics, as well as theoretical aspects.

See Criterion 5 above with commentary on each module which covers some aspects of assessment in this regard.

¹⁶ See the section on transitional arrangements.

¹⁷ This assumes the minimum intended programme/module learning outcomes are consistent with the applicable awards standards.

¹⁸ The programme assessment strategy is addressed in the Assessment Guidelines, Conventions and Protocols for Programmes Leading to QQI Awards. See the section on transitional arrangements.

¹⁹ If the award is a QQI CAS compound award it is not necessarily sufficient that the learner has achieved all the components specified in the certification requirements unless at least one of those components is a capstone component (i.e. designed to test the compound learning outcomes).

Criterion 11: Learners enrolled on the programme are well informed, guided and cared for

<p>a) There are arrangements to ensure that each enrolled learner is fully informed in a timely manner about the programme including the schedule of activities and assessments.</p> <p>b) Information is provided about learner supports that are available to learners enrolled on the programme.</p> <p>c) Specific information is provided to learners enrolled on the programme about any programme-specific appeals and complaints procedures.</p> <p>d) If the programme is modular, it includes arrangements for the provision of effective guidance services for learners on the selection of appropriate learning pathways.</p> <p>e) The programme takes into account and accommodates to the differences between enrolled learners, for example, in terms of their prior learning, maturity, and capabilities.</p> <p>f) There are arrangements to ensure that learners enrolled on the programme are supervised and individualised support and due care is targeted at those who need it.</p> <p>g) The programme provides supports for enrolled learners who have special education and training needs.</p> <p>h) The programme makes reasonable accommodations for learners with disabilities²⁰.</p> <p>i) If the programme aims to enrol international students it complies with the <i>Code of Practice for Provision of Programmes to International Students</i>²¹ and there are appropriate in-service supports in areas such as English language, learning skills, information technology skills and such like, to address the particular needs of international learners and enable such learners to successfully participate in the programme.</p> <p>j) The programme's learners will be well cared for and safe while participating in the programme, (e.g. while at the provider's premises or those of any collaborators involved in provision, the programme's locations of provision including any workplace locations or practice-placement locations).</p>		
Programme	Satisfactory? (yes, no, partially)	Comment
Master of Science in Financial Analytics	Yes	
Postgraduate Diploma in Science in Financial Analytics	Partially	The text in the documentation for the MSs was satisfactory, but incomplete content was presented within the specific Programme Document on the Postgraduate Diploma presented to the panel. It is a condition that the cross-references are removed to create a stand-alone document for the Postgraduate Diploma.

It is a condition that DBS complete the programme documentation and remove cross-references to the MSc programme document from Section 8 for use as a stand-alone document.

The panel was advised that DBS has a number of specific supports at a central level to provide services to learners. This includes the Student Experience Department which encompasses Careers and Student Services who work to enhance the experience of students at all stages. With a diverse range of students from many countries, the team stated that the overall focus was to promote a DBS community and a culture that is focused on student wellbeing and success. It was stated that there is a system of class reps and class mentors in place and which was working well,

²⁰ For more information on making reasonable accommodations see www.AHEAD.ie and QQI's Policies, Actions and Procedures for Access, Transfer and Progression for Learners (QQI, restated 2015).

²¹ See Code of Practice for Provision of Programmes to International Students (QQI, 2015)

with good, active engagement by DBS staff and learners, all of which contributed to the building of a supportive environment.

The panel was informed that, with the advent of COVID-19 that there had been an increase in the level of support needed, particularly for international students, many of whom were isolated working from their own rooms. This was delivered through additional on-line supports such as a new chat function on MOODLE, coordinated services from the student welfare teams and the library and an increase in the counselling services offered by an outside agency. DBS told the panel that this type of service will be offered to students of the proposed programme as required.

The panel noted that there is student representation on a number of boards, including the Academic Board. The panel was informed that DBS works with the Students' Union, particularly in relation to issues of student welfare and educational matters, including involvement by learners in the DBS Quality Enhancement and Innovation in Teaching and Learning forum. These mechanisms provided a way for DBS to receive feedback from learners in relation to areas such as the experience of taking exams online for instance and to refine such processes which are likely to continue for the foreseeable future.

Criterion 12: The programme is well managed

<p>a) The programme includes intrinsic governance, quality assurance, learner assessment, and access, transfer and progression procedures that functionally interface with the provider’s general or institutional procedures.</p> <p>b) The programme interfaces effectively with the provider’s QQI approved quality assurance procedures. Any proposed incremental changes to the provider’s QA procedures required by the programme or programme-specific QA procedures have been developed having regard to QQI’s statutory QA guidelines. If the QA procedures allow the provider to approve the centres within the provider that may provide the programme, the procedures and criteria for this should be fit-for-purpose of identifying which centres are suited to provide the programme and which are not.</p> <p>c) There are explicit and suitable programme-specific criteria for selecting persons who meet the programme’s staffing requirements and can be added to the programme’s complement of staff.</p> <p>d) There are explicit and suitable programme-specific criteria for selecting physical resources that meet the programmes physical resource requirements, and can be added to the programme’s complement of supported physical resources.</p> <p>e) Quality assurance²² is intrinsic to the programme’s maintenance arrangements and addresses all aspects highlighted by the validation criteria.</p> <p>f) The programme-specific quality assurance arrangements are consistent with QQI’s statutory QA guidelines and use continually monitored completion rates and other sources of information that may provide insight into the quality and standards achieved.</p> <p>g) The programme operation and management arrangements are coherently documented and suitable.</p> <p>h) There are sound procedures for interface with QQI certification.</p>		
Programme	Satisfactory? (yes, no, partially)	Comment
Master of Science in Financial Analytics	Yes	
Postgraduate Diploma in Science in Financial Analytics	Partially	The text in the documentation for the MSs was satisfactory, but incomplete content was presented within the specific Programme Document on the Postgraduate Diploma presented to the panel. It is a condition that the cross-references are removed to create a stand-alone document for the Postgraduate Diploma.

It is a condition that DBS complete the programme documentation and remove cross-references to the MSc programme document from Section 8 for use as a stand-alone document.

The panel is satisfied that there are effective structures in place for the governance and management of the proposed programmes. The QAH contains the governance structures for the College and sets out procedures for access, transfer and progression, learner assessments and supports, and teaching and learning.

The panel noted that the structures, roles and responsibilities for line management of the proposed programmes were set out clearly. The panel is further satisfied that the QAH and associated policies and procedures have been developed in line with QQI statutory guidelines.

²² See also QQI’s Policy on Monitoring (QQI, 2014)

Part 3. Overall recommendation to QQI

3.1 Principle Programme Master of Science in Financial Analytics

Satisfactory subject to conditions set out	Satisfactory subject to proposed special conditions (specified with timescale for compliance for each condition; these may include proposed pre-validation conditions i.e. proposed (minor) things to be done to a programme that almost fully meets the validation criteria before QQI makes a determination);
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Reasons for the overall recommendation

The panel is satisfied proposed programme meets the criteria, subject to the 1 condition as set out below.

Special Conditions of Validation (directive and with timescale for compliance)

1. Overall, it is a condition that DBS clarify the supervision, scope and structure of Modules 10 and 11 (Applied Research Methods and Research Project).

Recommendations to the provider

1. It is recommended that DBS continue discussions with professional bodies to aid the recognition and competitiveness of the programme and its graduates against professional body membership.
2. It is recommended that DBS review the documentation to be more explicit at a programme and module level of the languages, software and databases to be used on the programme to manage learner expectations.

Embedded programme: Postgraduate Diploma in Science in Financial Analytics

Satisfactory subject to conditions set out	Satisfactory subject to proposed special conditions (specified with timescale for compliance for each condition; these may include proposed pre-validation conditions i.e. proposed (minor) things to be done to a programme that almost fully meets the validation criteria before QQI makes a determination);
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Special Conditions of Validation (directive and with timescale for compliance)

1. None.

Recommendations

As above.

3.2 Principal Programme 2: Postgraduate Diploma in Science in Financial Analytics

Satisfactory subject to conditions as set out.	Satisfactory subject to proposed special conditions (specified with timescale for compliance for each condition; these may include proposed pre-validation conditions i.e. proposed (minor) things to be done to a programme that almost fully meets the validation criteria before QQI makes a determination);
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Reasons for the overall recommendation

The panel is satisfied that the criteria have been met, subject to conditions as set out being met.

Recommended special conditions of validation

1. It is a condition that DBS finalise the programme documentation to remove cross-references to the MSc programme document from Sections 5, 7, 8 and 9 for use as a stand-alone document for the Postgraduate Diploma in Science in Financial Analytics
2. It is a condition that DBS clarify within the documentation on the progression arrangements between the Postgraduate Diploma in Financial Analytics and the Masters of Science in Financial Analytics programmes.

Recommendations to the provider

- 1 It is recommended that DBS continue discussions with professional bodies to aid the recognition and competitiveness of the programme and its graduates against professional body membership.
- 2 It is recommended that DBS review the documentation to be more explicit at a programme and module level of the languages, software and databases to be used on the programme to manage learner expectations.

Declarations of Evaluators' Interests

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

Panel chairperson: Karen Jones

Date: 31 August 2020

Signed:

Mrs Karen Jones



3.3 Disclaimer

The Report of the External Review Panel contains no assurances, warranties or representations express or implied, regarding the aforesaid issues, or any other issues outside the Terms of Reference.

While QQI has endeavoured to ensure that the information contained in the Report is correct, complete and up-to-date, any reliance placed on such information is strictly at the reader's own risk, and in no event will QQI be liable for any loss or damage (including without limitation, indirect or consequential loss or damage) arising from, or in connection with, the use of the information contained in the Report of the External Evaluation Panel.

Part 1. Proposed programme schedules

Master of Science in Financial Analytics Full-time

Name of Provider:		Dublin Business School												
Programme Title		Master of Science in Financial Analytics												
Award Title		Master of Science												
Stage Exit Award Title		Postgraduate Diploma in Science in Financial Analytics												
Modes of Delivery (FT/PT):		Full-time												
Teaching and learning modalities		Formal lectures, seminars interactive group work, specific learning groups as defined by area of academic need, workshops, presentations, educator/teacher review, case-based learning, problem based learning												
Award Class	Award NFQ level	Award EQF Level	Stage (1, 2, 3, 4, ..., or Award Stage):			Stage NFQ Level	Stage EQF Level	Stage Credit (ECTS)	Date Effective	ISCED Subject code				
Major	9	7	Award			9	7	90	Sept 2020	0412				
Module Title (Up to 70 characters including spaces)		Semester no where applicable. (Semester 1 or Semester2)	Module		Credit Number	Total Student Effort Module (hours)					Allocation of Marks (from the module assessment strategy)			
			Status	NFQ Level where specified	Credit Number	Total Hours	Class (or equivalent) Contact Hours	Directed e-learning	Hours of Independent Learning	Work-based learning effort	C.A. %	Supervised Project %	Proctored practical demonstration %	Proctored written exam %
Principles of Financial Decision Making		1	M	9	10 ECTS	250	48	62	140		60			40
Data Analytics & Machine Learning for Finance		1	M	9	10 ECTS	250	48	62	140		100			0
Predictive Financial Modelling		1	M	9	10 ECTS	250	48	62	140		100			0
Applied Financial Analytics		2	M	9	5 ECTS	125	24	62	39		100			0
Financial Intelligence and Data Visualisation		2	M	9	5 ECTS	125	24	62	39		100			0
Information & Cybersecurity Management		2	M	9	5 ECTS	125	24	62	39		50			50
Financial Risk Management		2	M	9	5 ECTS	125	24	62	39		50			50
Behavioural Economics and Finance		2	M	9	5 ECTS	125	24	50	51		50			50
Innovation in Financial Technology		2	M	9	5 ECTS	125	24	50	51		100			0
Applied Research Methods		2	M	9	5 ECTS	125	24	50	51		100			0
Applied Research Project		3	M	9	25 ECTS	625	12		613		100			0
Special Regulations (Up to 280 characters)														

Master of Science in Financial Analytics Part-time

Name of Provider:		Dublin Business School												
Programme Title		Master of Science in Financial Analytics												
Award Title		Master of Science												
Stage Exit Award Title		Postgraduate Diploma in Science in Financial Analytics												
Modes of Delivery (FT/PT):		Part-time												
Teaching and learning modalities		Formal lectures, seminars interactive group work, specific learning groups as defined by area of academic need, workshops, presentations, educator/teacher review, case-based learning, problem based learning												
Award Class	Award NFQ level	Award EQF Level	Stage (1, 2, 3, 4, ..., or Award Stage):		Stage NFQ Level	Stage EQF Level	Stage Credit (ECTS)	Date Effective	ISCED Subject code					
Major	9	7	Award		9	7	90	Sept 2020	0412					
Module Title (Up to 70 characters including spaces)		Semester no where applicable. (Semester 1 or Semester2)	Module		Credit Number	Total Student Effort Module (hours)					Allocation of Marks (from the module assessment strategy)			
			Status	NFQ Level where specified	Credit Number	Total Hours	Class (or equivalent) Contact Hours	Directed e-learning	Hours of Independent Learning	Work-based learning effort	C.A. %	Supervised Project %	Proctored practical demonstration %	Proctored written exam %
Principles of Financial Decision Making		1	M	9	10 ECTS	250	36	74	140		60			40
Data Analytics & Machine Learning for Finance		1	M	9	10 ECTS	250	36	74	140		100			0
Predictive Financial Modelling		2	M	9	10 ECTS	250	36	74	140		100			0
Applied Financial Analytics		2	M	9	5 ECTS	125	18	68	39		100			0
Financial Intelligence and Data Visualisation		2	M	9	5 ECTS	125	18	68	39		100			0
Information & Cybersecurity Management		3	M	9	5 ECTS	125	18	68	39		50			50
Financial Risk Management		3	M	9	5 ECTS	125	18	56	51		50			50
Behavioural Economics and Finance		3	M	9	5 ECTS	125	18	56	51		50			50
Innovation in Financial Technology		3	M	9	5 ECTS	125	18	56	51		100			0
Applied Research Methods		3	M	9	5 ECTS	125	18	56	51		100			0
Applied Research Project		4	M	9	25 ECTS	625	12		613		100			0
Special Regulations (Up to 280 characters)														

Postgraduate Diploma in Science in Financial Analytics Full-time

Name of Provider:		Dublin Business School												
Programme Title		Postgraduate Diploma in Science in Financial Analytics												
Award Title		Postgraduate Diploma in Science												
Stage Exit Award Title		N/A												
Modes of Delivery (FT/PT):		Full-time												
Teaching and learning modalities		Formal lectures, seminars interactive group work, specific learning groups as defined by area of academic need, workshops, presentations, educator/teacher review, case-based learning, problem based learning												
Award Class	Award NFQ level	Award EQF Level	Stage (1, 2, 3, 4, ..., or Award Stage):		Stage NFQ Level	Stage EQF Level	Stage Credit (ECTS)	Date Effective	ISCED Subject code					
Major	9	7	Award		9	7	90	Sept 2020	0412					
Module Title (Up to 70 characters including spaces)		Semester no where applicable. (Semester 1 or Semester2)	Module		Credit Number	Total Student Effort Module (hours)					Allocation of Marks (from the module assessment strategy)			
			Status	NFQ Level where specified	Credit Number	Total Hours	Class (or equiv) Contact Hours	Directed e-learning	Hours of Independent Learning	Work-based learning effort	C.A. %	Supervised Project %	Proctored practical demonstration %	Proctored written exam %
Principles of Financial Decision Making		1	M	9	10 ECTS	250	48	62	140		60			40
Data Analytics & Machine Learning for Finance		1	M	9	10 ECTS	250	48	62	140		100			0
Predictive Financial Modelling		1	M	9	10 ECTS	250	48	62	140		100			0
Applied Financial Analytics		2	M	9	5 ECTS	125	24	62	39		100			0
Financial Intelligence and Data Visualisation		2	M	9	5 ECTS	125	24	62	39		100			0
Information & Cybersecurity Management		2	M	9	5 ECTS	125	24	62	39		50			50
Financial Risk Management		2	M	9	5 ECTS	125	24	50	51		50			50
Behavioural Economics and Finance		2	M	9	5 ECTS	125	24	50	51		50			50
Innovation in Financial Technology		2	M	9	5 ECTS	125	24	50	51		100			0
Special Regulations (Up to 280 characters)														

Postgraduate Diploma in Science in Financial Analytics Part-time

Name of Provider:		Dublin Business School														
Programme Title		Postgraduate Diploma in Science in Financial Analytics														
Award Title		Postgraduate Diploma in Science														
Stage Exit Award Title		N/A														
Modes of Delivery (FT/PT):		Part-time														
Teaching and learning modalities		Formal lectures, seminars interactive group work, specific learning groups as defined by area of academic need, workshops, presentations, educator/teacher review, case-based learning, problem based learning														
Award Class	Award NFQ level	Award EQF Level	Stage (1, 2, 3, 4, ..., or Award Stage):	Stage NFQ Level	Stage EQF Level	Stage Credit (ECTS)	Date Effective	ISCED Subject code								
Major	9	7	Award	9	7	90	Sept 2020	0412								
Module Title (Up to 70 characters including spaces)	Semester no where applicable. (Semester 1 or Semester2)	Module		Credit Number	Total Student Effort Module (hours)					Allocation of Marks (from the module assessment strategy)						
		Status	NFQ Level where specified	Credit Number	Total Hours	Class (or equivalent) Contact Hours	Directed e-learning	Hours of Independent Learning	Work-based learning effort	C.A. %	Supervised Project %	Proctored practical demonstration %	Proctored written exam %			
Principles of Financial Decision Making	1	M	9	10 ECTS	250	36	74	140		60			40			
Data Analytics & Machine Learning for Finance	1	M	9	10 ECTS	250	36	74	140		100			0			
Predictive Financial Modelling	2	M	9	10 ECTS	250	36	74	140		100			0			
Applied Financial Analytics	2	M	9	5 ECTS	125	18	68	39		100			0			
Financial Intelligence and Data Visualisation	2	M	9	5 ECTS	125	18	68	39		100			0			
Information & Cybersecurity Management	3	M	9	5 ECTS	125	18	68	39		50			50			
Financial Risk Management	3	M	9	5 ECTS	125	18	56	51		50			50			
Behavioural Economics and Finance	3	M	9	5 ECTS	125	18	56	51		50			50			
Innovation in Financial Technology	3	M	9	5 ECTS	125	18	56	51		100			0			
Special Regulations (Up to 280 characters)																